

# CHEM-BIO DEFENSE

Quarterly



Vol. 1 No. 2

## The Chem-Bio Acquisition News and Information Resource

Honorable Dr. Dale E. Klein,  
Assistant to the Secretary of Defense  
for Nuclear and Chemical and  
Biological Defense



**Interviews  
with Chem-Bio  
Senior Leadership**

*Joint Program Executive Office  
1st Anniversary  
Apr 22, 2003 - Apr 22, 2004*



Cover photo by SGT Justin Harris  
Compilation by Steven Lusher



**UH-60 Blackhawk helicopter flies over Logistical Supply Area Anaconda, operated by the 13th Corps Support Command in Iraq. Army aviation units are playing a key role in Operation Iraqi Freedom.**





Photo by Pfc. Blanka Stratford

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## From the Joint Program Executive Officer



**Brigadier General Stephen V. Reeves**  
Joint Program Executive Officer  
for Chemical and Biological Defense

**A** year ago this month, the Secretary of Defense directed implementing a new plan for the management of the Chemical and Biological Defense Program. That implementation plan created the Joint Program Executive Office for Chemical and Biological Defense, the Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense, the Joint Science and Technology Office, and the Joint Test and Evaluation Executive.

This month, our magazine recognizes the one-year mark of that establishment. In this issue we discuss this benchmark collaboration with Army and Department of Defense (DoD) senior leadership who share their thoughts on the new organization.

Collectively, over the course of the last year, we have made a difference. In these pages, the senior leadership tells you how.

With the capture of Saddam Hussein and with our forces on the trail of Al Qaeda operatives and other terrorists, the mission has never been clearer. Our warfighters remain the centerpiece of our innovations, our systems and our programs. The Soldiers, Sailors, Airmen, Marines, DoD civilians and the contractors of the Chemical and Biological Defense Program are focused, dedicated and committed to ensuring we deliver the best technology and equipment to the force at the right cost, at the right time and in the right place.

**Brigadier General Stephen V. Reeves**  
Joint Program Executive Officer  
for Chemical and Biological Defense

### Joint Program Executive Office

Brigadier General Stephen V. Reeves  
Joint Program Executive Officer

Richard W. Decker  
Acting Deputy JPEO

Susan Hubbard  
Director, Management Support

CDR Charlie Cutshall  
Director, Business Management

Dr. David Cullin  
Director, Technology Integration

Brenda Besore  
Director, Information Technology

Larry Wakefield  
Director, Systems Support

Mary Brett  
Director, Human Resources

#### Magazine Staff

Julius L. Evans  
Public Affairs Officer  
Julius.Evans@jpeocbd.osd.mil

Steven Lusher  
Senior Graphics Designer  
Steve.Lusher@jpeocbd.osd.mil

Elizabeth Sass  
Special Events Officer  
Elizabeth.Sass@jpeocbd.osd.mil

Neicea Mallon  
Webmaster  
webmaster@jpeocbd.osd.mil

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To contact the editorial office:

Call (703) 681-9600/5197 or DSN  
588-9600/5197

Fax (703) 681-3454  
DSN 761-3454

Email: [editor@jpeocbd.osd.mil](mailto:editor@jpeocbd.osd.mil)

Articles should be submitted to:  
Chem-Bio Defense Quarterly  
5203 Leesburg Pike  
Skyline 2, Suite 1609  
Falls Church, VA 22041  
[www.jpeocbd.osd.mil](http://www.jpeocbd.osd.mil)



Photo by Steven Lusher

# Breaking New Ground

## IN THE CHEMICAL AND BIOLOGICAL DEFENSE COMMUNITY

Interview by Julius L. Evans

**B**rigadier General Patricia L. Nilo is the Acting Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense. She serves as the single focal-point within the Office of the Secretary of Defense (OSD), responsible for oversight, coordination and integration of chemical and biological defense, counter proliferation support, chemical demilitarization and Assembled Chemical Weapons Assessment programs. She is a member of the OSD Steering

Committee for Chemical and Biological Defense, and represents the Department of Defense on numerous interagency and international groups addressing Chemical and Biological issues. Before Pentagon staff duty, Brig. Gen. Nilo was Chief of Chemical and Commandant, United States Army Chemical School, Fort Leonard Wood, Missouri. She graduated from Boston State College in 1970 with a Bachelor of Arts Degree in Biology and in 1973 with a Master of Education in Biology.

**Please define your responsibilities in the Chemical Biological Radiological Defense arena?**

As acting Deputy Assistant to the Secretary of Defense for Chemical, Biological, Radiological, and Nuclear (CBRN) Defense, I see my role as conducting the day-to-day management and integration of the overall program for Dr. Dale E. Klein, (Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs). I see my role as

one to empower the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), the Joint Requirements Office (JRO), and the Joint Science and Technology Office (JSTO) to meet their responsibilities and provide guidance and direction when needed. I also have the function of coordinating our efforts with other organizations within the Office of the Secretary of Defense (OSD), and agencies outside DoD, that we work with, to ensure we provide the best support to National Security.

**Please discuss the significance of the restructured program and why it is important?**

The Joint CBRN defense program will continue to evolve as we find ways to make it better. The way we do business now breaks new ground for managing a joint program. The significance of the restructured program is that it is another step in the evolution of the process. Because of the impact of Sept. 11, overall funding growth, and the increasing complexity of the program, it has gained more visibility than in the past. We simply outgrew our initial structure and needed to make it more relevant and responsive. That is important because the restructured program gives us the vehicles to better meet the needs of the war-fighter.

**Do you foresee further organizational or structure changes to the CBRN Program?**

We need to give this structure a chance to work and settle in. The implementation plan has been in effect for less than a year. If there are any changes, they will only be tweaks to improve processes.

**What was the advantage of putting the joint programs under**

**one Program Executive Officer?**

The big advantage is we now have the Research, Development, and Acquisition (RDA) function under a coherent organization with one responsible person to ensure integration of the program. There is a single RDA focal point we can work with instead of a number of different Program Managers.

**What sort of report card grade would you give the JPEO and why?**

Since we haven't gone full cycle yet with the program, it is too early to give a grade. A better gauge will be at the mid-year review. That being said, the performance of the JPEO to date has been head and shoulders above the old Joint Service Materiel Group (JSMG) construct in openness, innovation, cooperation, and partnering with the requirements side of the program.

**Reviewing the past year, how would you assess the JPEO's efficiency?**

From the standpoint of solving problems, the JPEO is proving to be very efficient.

**What are the most important issues facing the CBRN community in your view?**

The biggest issue is maintaining a technological edge in a timely manner. Our area is very complex and we often push the envelope on technology to develop new capabilities. I think that in the past we may have rushed technology which delayed the promise of new capabilities to the field. I do think we have a more realistic approach with the cooperation of the JPEO with the JSTO.

Another issue is how we

work with other agencies with their renewed and, in some cases, emerging missions that have direct linkage to what we are doing in our program. We are pursuing ways to share our experience and needs by working toward agreements to leverage each others' strengths.

**What are the biggest policy and/or technical challenges that face the warfighter when asked to fight in a contaminated environment? How has the JPEO impacted this?**

We still have issues with size, weight, and sometimes power consumption with the equipment we provide the warfighter. Our protective clothing is still cumbersome and our missions are still logistically burdensome. The JPEO's impact that I have seen is the willingness to go out to find different solutions not just in our laboratories but in academia and industry. These communities are very engaged in our business and the JPEO is leveraging this capability.

**In your view, has the JPEO utilized the lessons learned from Operations Enduring Freedom and Iraqi Freedom? What specific lessons come to mind when answering these questions?**

The Joint Requirements Office (JRO) is working closely with the JPEO to sort through what came out of those two operations to ensure we fix gaps quickly where we can and incorporate those mid and far-term fixes in our planning process.

**Considering the different aspects that make up the Chemical, Biological, Radiological, and Nuclear Program, Science**



**and Technology (S&T), Test and Evaluation (T&E), Requirements and Acquisition, has the CDBP effectively brought together all these different processes and perspectives to provide the warfighter the capability they need? How so?**

Probably for the first time that I can remember, and I have been with this program from the beginning, we have a cooperative interface that allows requirements to drive the S&T, and an S&T program that is effectively linked with the Research and Development (R&D) programs. There was a tremendous amount of good work and plowing new ground, but now we have a more coherent program than ever.

**How will the national military strategy help us better interact and play a role with the Department of Homeland Security (DHS) in reference to the Department of Defense (DoD) prospective of responding to defensive measures against chemical, biological, and radio-logical terrorist type threats?**

This answer is in two parts. First, since we are now capabilities-based in our approach to equipping the forces, we are better prepared to meet the needs of this nation in support of our civilian responders if required. Dealing with the asymmetry in the battlespace and the places we are

operating, begins to blur the separation once thought of between battlespace operations and homeland defense operations. We face the same challenges of how we are equipped, the development of new and more relevant doctrine, and how we train. That puts the DoD CBRN capability in a better position to support our national military strategy. We work very closely with the newly established Assistant Secretary of Defense for Homeland Defense (ASD(HD)), our interface with the DHS. We also participate in many inter-agency working groups to bring together the military and civilian sectors in this war against terrorism and the protection of our nation.

**How does the establishment of the JPEO-CBD help bring the required capabilities to the warfighter?**

It is hoped that the cooperative environment among the JRO, JSTO, and the JPEO, along with an energized relationship with the test community, will provide programs to the warfighter that are relevant, safe, effective, and timely.

**How has the formation of the JPEO-CBD leveraged and implemented the transformation direction authored by the Secretary of Defense?**

The Secretary of Defense gave us

the challenge. He said, "... But we do not seek evolutionary progress in our ability to defend ourselves. So little is certain when it comes to the future of warfare, but on one point we must be clear: We risk deceiving ourselves and emboldening future adversaries by assuming it will look like the past. Sept. 11 proved one thing above all others: Our enemies are transforming. Will we?"

I think what we have done in transforming our program is in keeping with Mr. Rumsfeld's direction. One big step toward this is retooling our approach toward baseline capabilities that will allow our force to be adaptive and agile.

**Do you have any concluding thoughts?**


I think you covered this area quite well but I would like to leave you with some thoughts. Everyone involved in this program has one focus in mind and that is providing the best capabilities that our fighting men and women deserve. We need to make every effort to ensure the requirements and acquisition systems work for us to that end and never allow a bureaucratic answer to get in the way of our focus. Preparing our forces to meet the challenges of today's battlespace with a view on tomorrow's challenges provides this nation with a capability that is flexible in response from being able to win a conflict decisively to protecting our homeland. 



Photo by Steven Lusher



# High Throughput Laboratory Operations Biological Warfare Detection Capabilities Evolve

File Photo

*By Dr. David Cullin, Dr. Michael Walter, and Ms. Kristin Korté*

**A**s the mission of detecting aerosolized attacks of biological warfare agents has evolved, the use of laboratories in support of that mission has also changed. In 1997, the Department of Defense (DoD) initially deployed confirmatory laboratories in support of the deployment of Portal Shield in Southwest Asia and on the Korean Peninsula. The Joint Portal Shield (JPS), is a smart, automated, networked, system of bio-detection sensors that monitors background aerosols for conditions consistent with that of a biological attack. JPS is currently capable of identifying up to 10 agents in 15 minutes. The basis of the identification system for JPS is the immuno-assay tickets using the DoD Hand-Held Assays (HHAs). HHA testing is presumptive, and therefore requires additional analytical confirmation to confirm the presence of a biological warfare

agent. In 1997, JPS was supported by the Theater Army Medical Laboratories (TAML), and the Naval Forward Deployed Laboratories (NFDL), to confirm presumptive positive results from the JPS.

Concerns regarding the prospect of bio-terrorism at state sponsored events such as State of the Union addresses, inaugurations and the NATO anniversary required deployment of other types of samplers other than JPS. The Portable Biological Agent Sampling System (PBASS), was manually operated and, like JPS, impinges an aerosol sample into a buffer solution. These samples were also screened using HHAs. Presumptive positive samples were subsequently confirmed at "Gold Standard Laboratories" such as the United States Army Medical Research Institute of Infectious Disease (USAMRIID) or the Naval Medical Research Center (NMRC).

In the late 1990's, this practice was reasonable because the overall quantities of suspect samples sent to the Gold Standard Laboratories for follow-on analysis were generally low, requiring minimal expenditure of manhours and supplies to accommodate sampling.

Following the terrorist attacks of Sept. 11, 2001, and the Anthrax-tainted letters of Oct. 2001, it became necessary to have sustained monitoring of potential bio-terrorism targets in the National Capital Region (NCR). Quick initiatives to perform environmental sampling throughout the NCR highlighted several operational challenges for the DoD. The existing JPS and PBASS systems are not designed to accommodate aerosol sampling over a widespread area but instead are deployed to isolated areas of operational concern. Both JPS and PBASS are used for prolonged periods of time, however



continuous use requires substantial logistical support (both personnel and consumables) to maintain operation. High unit cost of these systems limits procurement and thus drives strategic decisions with optimal equipment placement. Essential follow-on sample analysis presented additional challenges for the DoD. Screening associated with the Anthrax letters of 2001 and other perceived threats quickly forced the Gold Standard Laboratories out of their mission of research and development and occasional sample analysis into analytical production facilities. Although the organizations successfully accommodated the Nations' needs, their staff was inundated and preexisting research projects were pushed to the side. The high volume of samples produced by the NCR sampling effort easily overloaded the Gold Standard Laboratories and other laboratories such as the Armed Forces Institute of Pathology beyond the existing sampling capacity that these Service organizations were designed and funded to perform. Timely analysis within the Gold Standard Laboratories became constrained by the limited available laboratory space, personnel, analytical instruments, and expense.

In response to these challenges, the Joint Program Office for Biological Defense, now the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), deployed the Dry Filter Unit (DFU) as a sample collection system. DFUs are not as expensive to manufacture and maintain as the JPS and are able to function for prolonged periods of time with minimal logistical support. Unlike the PBASS and JPS systems, use of the DFUs allows increased deployment densities that were not practical with JPS or PBASS. The DFU is used to collect aerosolized particles on filters, with all fil-

ters subsequently screened using HHAs. Analysis of such a large number of filter samples requires production-level laboratories dedicated solely to the analysis of the filters. This laboratory has to provide accurate, precise detection capabilities currently employed within the Gold Standard Laboratories. Procedures in place within this laboratory require similar levels of confidence and quality assurance as those maintained within the Gold Standard Laboratories.

The laboratory has to use sensitive analytical technologies such as Polymerase Chain Reaction (PCR) for detection of bacteria and viruses and electrochemical luminescence (ECL) for detection of toxins for routine samples. The JPEO-CBD's Critical Reagents Program (CRP) had to expand to accommodate the reagents required for the NCR sampling operation. Midwest Research Institute (MRI), was contracted to establish and operate a government-funded contract production screening laboratory within the NCR. Following extensive training, coordination, and laboratory set up with the invaluable assistance of the U.S. Army Medical Research Institute of Infectious Diseases and Naval Medical Research Center, the NCR

sampling process was successfully transitioned into the NCR laboratory in 2002. To provide additional confidence about the quality of the analysis performed within the NCR laboratory, the JPEO-CBD established a Quality Assurance (QA) Program to monitor the performance of the laboratory. The QA program allows the results of the laboratory to be presented with increased confidence, that the

results are accurate, and that standard operating procedures are being followed.

In 2003, the Joint Service Installation Pilot Program (JSIPP), managed by the Defense Threat Reduction Agency (DTRA) had requirements to provide CBRN equipment capabilities to nine CONUS

installations. In collaboration with DTRA, the JPEO-CBD developed equipment packages to accommodate a component of these requirements permitting routine environmental screening of samples at six of the nine installations. These six installations received semi-permanent laboratories to per-

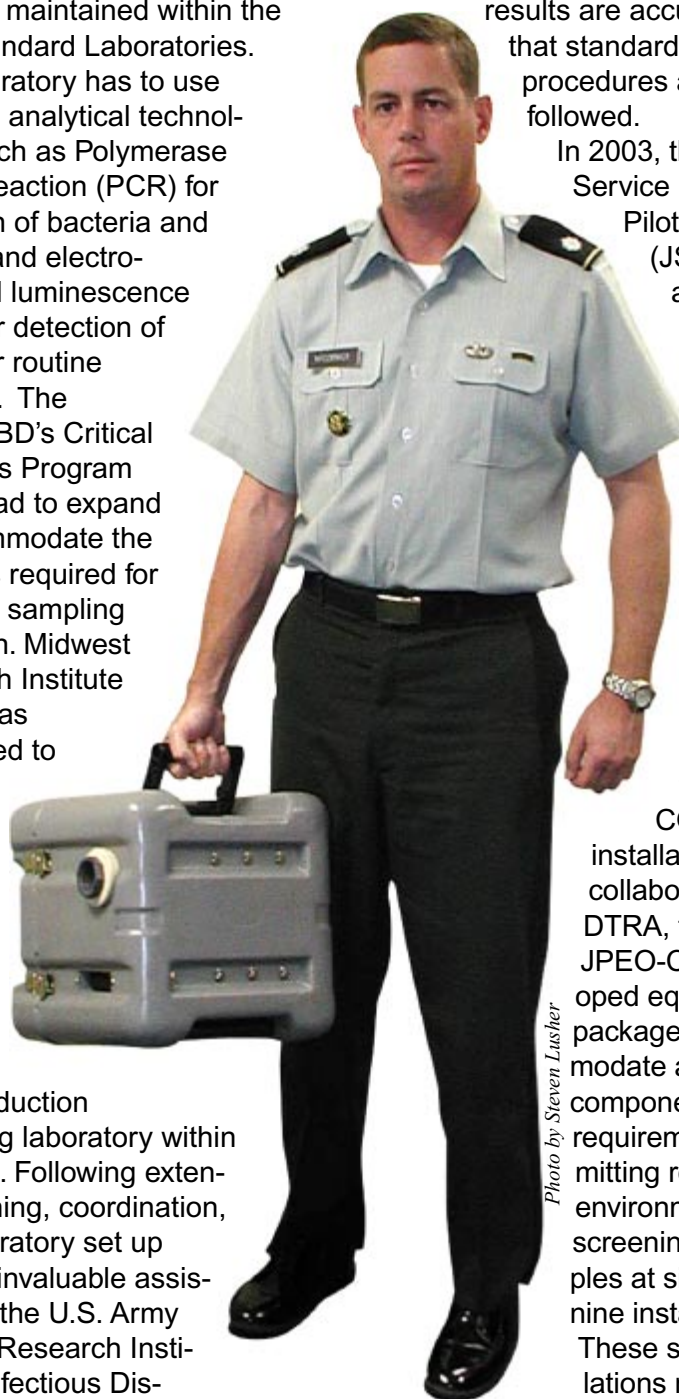


Photo by Steven Lusher

LTC Dan McCormick holding a Dry Filter Unit.

form sample analysis similar to the NCR operation. These JSIPP laboratories include state of the art detection capabilities; the JSIPP laboratory was the most comprehensive identification system ever deployed by the DoD allowing timely monitoring of aerosols for bio-terrorism. The JPEO-CBD expanded the QA program to monitor performance within each of the JSIPP laboratories.

Since the deployment of JPS just seven years ago, the development of laboratory-based sample analysis has evolved with changes to the nature of the bio-detection mission, to include not only force protection but also covert bio-terrorism. These new goals have required that envi-

ronmental sample analysis progress, with solutions moving away from laborious and time consuming specialized analytical methods practiced at select Gold Standard Laboratories on relatively low volumes of samples, and toward production ready facilities employing analytical processes. JPEO-CBD programs and operations such as NCR, QA, CRP, and Guardian continue to evolve to meet the demands and requirements of the warfighter and the Nation.

This Biological Warfare detection/identification system

was recently put to the test when a suspicious powder was discovered again on Capital Hill. Samples were sent to the NCR laboratory and then to Gold Standard Laboratories in the NCR for final confirmation. All results agreed that the sample was Ricin Toxin. 🌐



Photo by Elizabeth Sass

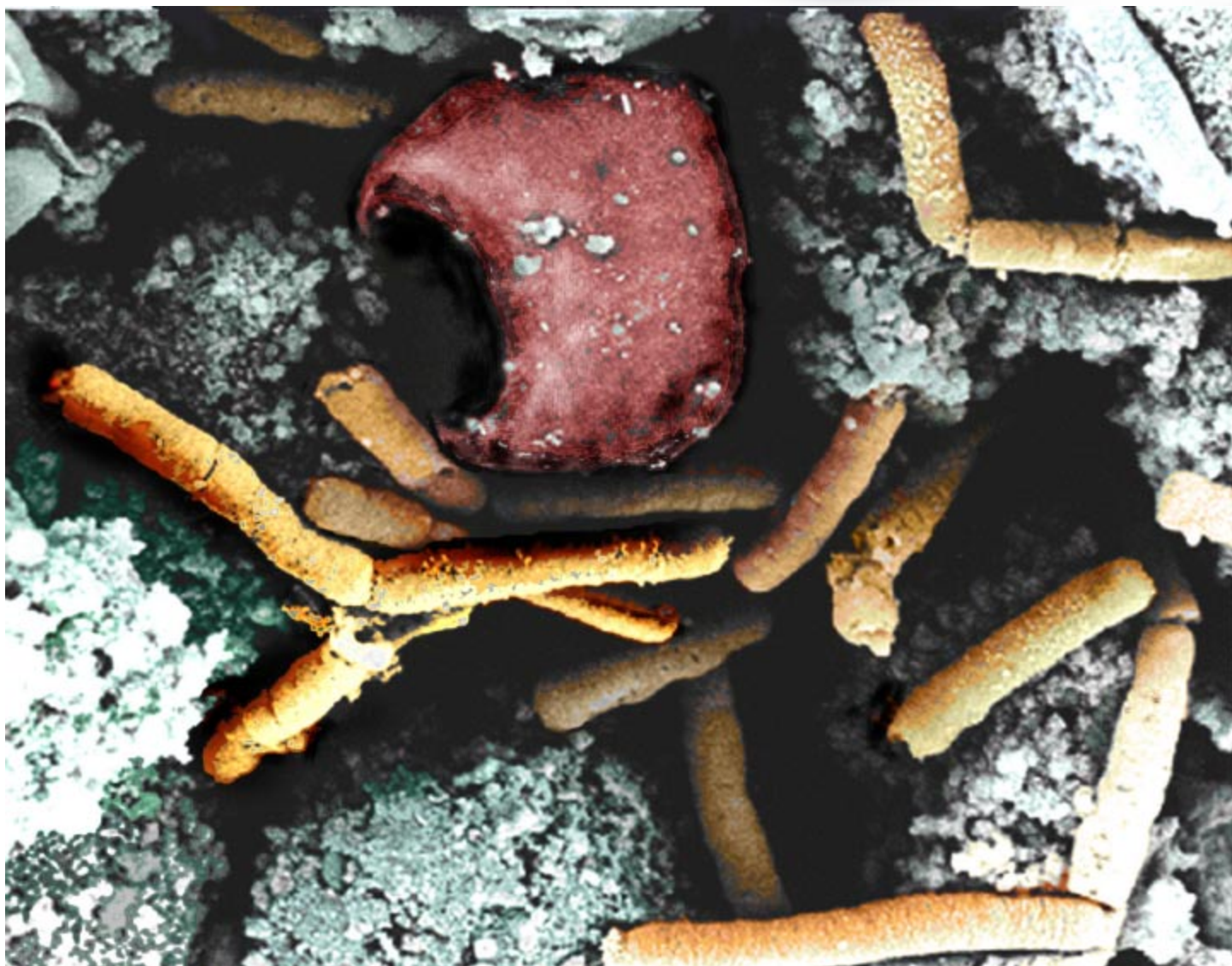


Photo by Arthur Friedlander, 1995 courtesy of Rocky Mountain Laboratories/NIH/NIH

**Color-enhanced scanning electron micrograph shows splenic tissue from a monkey with inhalational anthrax; featured are rod-shaped bacilli (yellow) and an erythrocyte (red)**



# Onboard USS *The Sullivans* Point Detection, Arriving!

By Mark V. Brown

**F**rom October 2003 to January 2004, the Joint Biological Point Detection System (JBPDS) was installed and tested onboard USS *The Sullivans* (DDG-68). The Arleigh Burke class destroyer is moored at Naval Station Mayport, FL and is part of the USS *John F. Kennedy*, (CV-67) Battle-group.

The primary purpose of the JBPDS is to detect the presence of biological warfare agents, identify the warfare agent and warn military forces of the biological attack to enact treatment or countermeasures. The JBPDS is designed to be a fully automated sensor and can identify multiple biological agents simultaneously. The system will be employable on all service platforms, ranging from Navy ships, and Army and Marine Corps vehicles, to trailer-mounted, portable systems. The JBPDS will be used to protect ports, ships, air bases, and ground forces and will be transportable via air, land, and sea.

The JBPDS is a highly visible joint service program that will provide all services with a unique and much needed biological warfare defense capability. The Navy test event is part of a joint service evaluation of the JBPDS to determine the system's overall effectiveness and suitability. This evaluation will be part of a major JBPDS production decision in the spring of 2004.

The system was installed on *The Sullivans* during eight consecutive days in October 2003. Naval Surface Warfare Center, Crane Division (NSWCRCR) completed the installation and received praise from the ship and Combatant Home Engineer-

ing Team (CHET), during installation checkout. The JBPDS is currently installed in the forward director room on the 05 level of the ship with the collection intakes located directly above the system.

Upon completion of the installation, Naval Surface Warfare Center, Dahlgren Division (NSWCDD), ensured the JBPDS was completely integrated with *The Sullivans* and its crew. The ship's Chemical, Biological, and Radiological Bill, (a document annotating certain damage control equipment in a specific space), was updated to include the JBPDS. Designated sailors were trained in the operation of the system and other designated sailors were trained in the maintenance of the system. NSWCDD received positive feedback from the crew about the JBPDS' ease of operation and maintenance.


Once the system was completely integrated with USS *The Sullivans*, NSWCDD conducted developmental testing (DT) of the JBPDS. Emphasis of the Navy DT was placed on building fundamental crew capabilities and confirming satisfactory operation of the equipment. Navy DT requirements for JBPDS were specific to the platform and the effects of a shipboard environment (such as interferents, salt water/sea spray, and temperature/humidity) on the JBPDS. Pier-side and underway testing were accomplished.

Test protocols included challenging the system directly using a biological warfare (BW) simulant to determine system effectiveness. Also, the system was operated unchallenged for significant periods to ascertain the impact

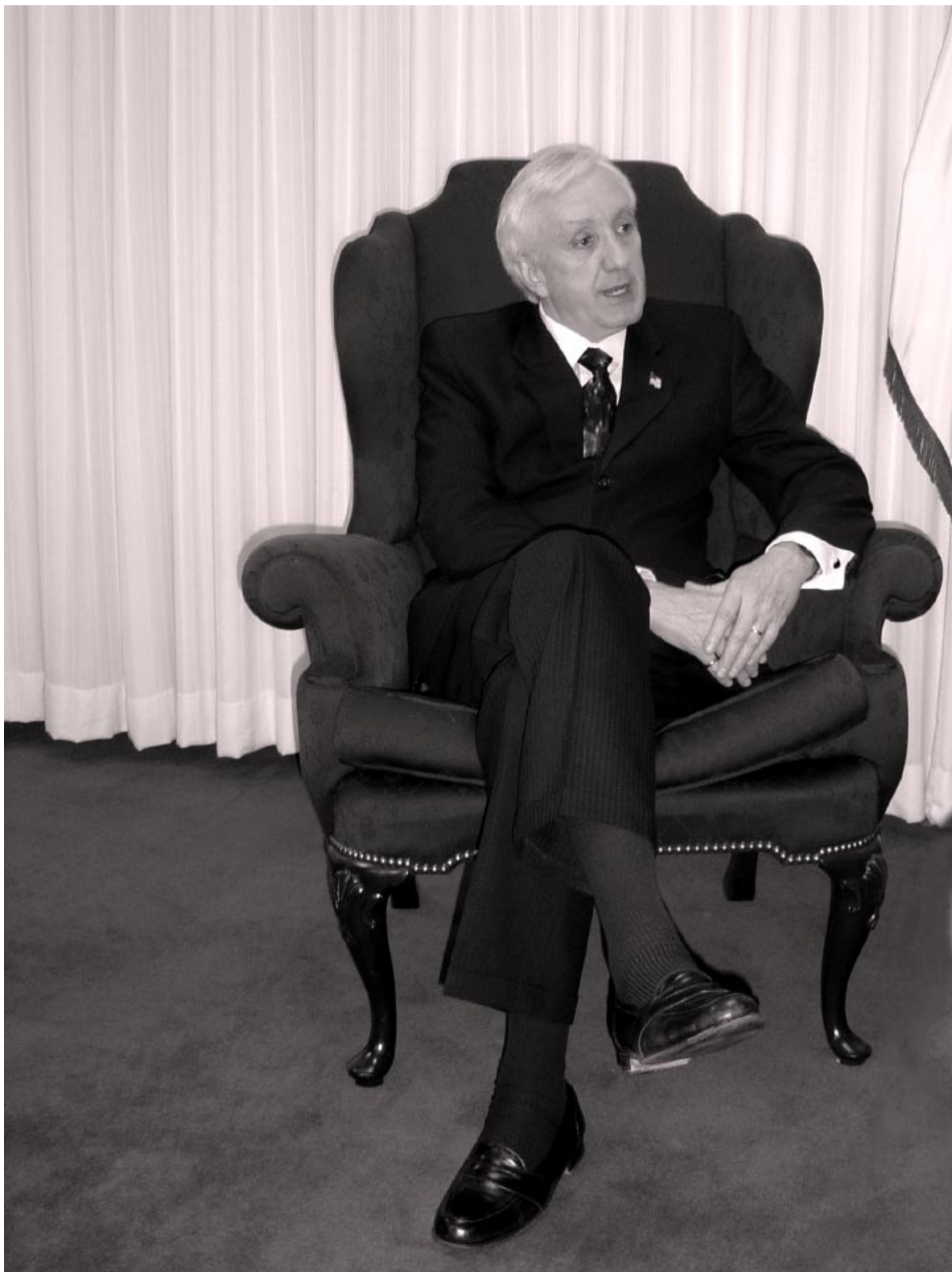
of environmental factors and routinely occurring interferents (such as diesel fuel). The primary concept was to operate JBPDS at a maximum rate, and to balance its response to overt challenges with the response obtained during automated operation of the machine. Throughout the DT, designated crewmembers were called upon to interact with the machine for system operation and corrective maintenance. Crewmember involvement was expected only when assigned duties permitted.

During DT, the JBPDS Shipboard variant demonstrated a high reliability, high probability of detection, low false positive rate, and resistance to ship specific interferents. While underway, the JBPDS was exposed to two ship refueling events, gun firing, sea spray, and pitch/roll with no negative effects.

The system has been turned over to Commander, Operational Test and Evaluation Force (COMOPTEVFOR) from Naval Sea Systems Command (NAVSEA) for an independent evaluation of the JBPDS. COMOPTEVFOR conducted its operational evaluation (OPEVAL) in January 2004. Results of this test are currently being evaluated.

The entire crew of USS *The Sullivans* is commended for its professionalism, cooperation, and dedication during all the Navy test events. 





*Photo by Steven Lusher*

# Assistant to the Secretary of Defense,

# Dr. Dale E. Klein

Interview by Julius L. Evans

**T**he Honorable Dr. Dale E. Klein was sworn in as the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense on November 15, 2001. In his position, he is the principal staff assistant and advisor to the Secretary of Defense, the Deputy Secretary of Defense and the Under Secretary of Defense for Acquisition and Technology for all matters concerning the formulation of policy and plans for nuclear, chemical and biological weapons. He is also directly responsible to the Secretary and Deputy Secretary of Defense for matters associated with nuclear weapons safety and security, chemical weapons demilitarization, chemical and biological defense programs, and smoke and obscurants. Prior to his appointment by President Bush, Dr. Klein was a professor in the Department of Mechanical Engineering (Nuclear Programs) at the University of Texas at Austin. He was Vice Chancellor for Special Engineering Programs at the University of Texas System from 1995 until November 2001. Dr. Klein received his Ph.D. in nuclear engineering from the University of Missouri-Columbia.

## **What was the advantage of putting the joint programs under one program executive officer?**

I think in the mid-1990s there was

a realization that we needed a coordinated Chemical and Biological Defense Program (CBDP), and that sort of laid the ground rules that we really needed an integrated Department of Defense (DoD) program. In other words, it would not be an Air Force program, it would not be an Army Program, it would not be an Office of the Secretary of Defense program, but a DoD program. So that's sort of the fundamental objective. And by having a Joint Program Executive Office (JPEO), we know who is accountable, who is responsible and who can keep it organized.

## **Reviewing the past year, how would you assess the Joint Program Executive Office's efficiency?**

From my observations, everything is working smoothly. As all programs go, it gets down to the people involved. I think that with Brigadier General Nilo and Brigadier General Reeves' involvement, we have the people who are very knowledgeable about the program. I think what Brig. Gen. Nilo brings to the program, which has been a big asset, is getting things to the men and women in uniform. She really brings the operational side to the table. I think we need to remind ourselves why we are here. We're here so we can provide the best equipment, the best

training and the best techniques and technology to the men and women in uniform.

## **Please explain how the Joint Program Executive Office has met your expectations since its establishment?**

The way it has met my expectations is when there is an issue, I know whom to call. We lay out from my office the responsibility of oversight, sort of like the big picture and then we go through Brig. Gen. Reeves. He can then delegate as needed to make sure we stay on target, within budget and meet the deliverables and milestones.

## **Describe any adjustments other services have faced in working with the Joint Program Executive Office.**

I think anytime you go through a reorganization like this you always have people who were used to things being done one certain way. There are always some challenges with people saying, 'this is the way we've always done it,' instead of, 'this is the way we should do it.' I think one of the advantages that we have in this establishment, in both the JPEO and the requirements side of the house, is that one individual is responsible for coordinating, identifying and prioritizing our require-

ments across all services. That reduces duplication and it makes the department a more efficient organization.

**What are the most important issues facing the Chemical Biological Defense community in your view?**

I think we have two really major issues. The first is we want to make sure we have the right equipment, the right training, and the right procedures for the men and women in uniform. So to me, that's number one. And then, I think we need to look at where we want to be 10 - 20 years from now, and identifying the decisions we need to make today to prepare us for what we expect to see in the future. Clearly, one of the issues that is a concern is the biological threat.

**In your view, would you say we are prepared to meet those challenges?**

We are preparing. I wouldn't say we are prepared at the moment because we really don't know what the bad guys will throw at us. But one thing we are emphasizing is the capabilities approach as opposed to just being narrowly focused. We would like to be able to handle, in the near future, anything the bad guys throws at us.

**What are the biggest policy and/or technical challenges that face the warfighter when asked to fight in a contaminated environment? How has the Joint Program Executive Office impacted this?**

I think the warfighter wants the greatest standoff detection capability possible. I also believe they would like to have the best equipment available. You'd like to make sure the Chem-Bio suits are as



Photo by Steven Lusher

Prior to his appointment by President Bush, Dr. Klein was a professor in the Department of Mechanical Engineering (Nuclear Programs) at the University of Texas at Austin.

comfortable as they can be. If you look, for example, at Operation Iraqi Freedom, it's a rather hot climate and having to don a chemical suit with a mask is not the most comfortable way to operate. So I think we need to make sure that we provide the warfighter with the best, most comfortable equipment we can to protect them in a contaminated environment. And then, in the event there is contamination, we'd like to be able to quickly decontaminate areas. If anyone is injured, we can treat him or her as quickly as possible.

**In your view, has the Joint Program Executive Office utilized the lessons learned from Operations Enduring Freedom and Operation Iraqi Freedom? What specific lessons come to mind when answering this question?**

Well, we are always going through a formal process of lessons learned, so we ask ourselves, how can we make things better? That process is ongoing. We also ask, what would we have done differently in both of those conflicts had contamination been involved? If there had been chemical or biological agents, we ask ourselves, would we have been ready, or what should we have done better?

So, if we find ourselves in a similar situation in the future we want to be prepared to best support the warfighter. Obviously, we have made significant progress on the anthrax vaccine so individuals going into a potential hostile environment are as prepared as they can be.

**How will the National Security and National Military Strategy help us better interact and play a role with the Department of Homeland Defense in reference to the DoD perspective of responding to defensive measures against chemical, biological, and radiological terrorist type threats?**

One thing that we need to do in the DoD is to make sure that we inform the Department of Homeland Security (DHS) of our current capabilities. I believe the issues the DHS may face will be different than what the warfighter will face. For example, if you look at the warfighters' needs, they have to be able to fight and win in a large contaminated environment. However, the DHS will probably face a more terrorist type threat. So it's important for the DoD to pass along the capabilities we currently have in the nuclear, chemical and



biological area so they don't reinvent the wheel. And by the same token, as they develop new technologies, we need to know what those are so we can provide the appropriate techniques to the warfighter. We've done that by having regular meetings between the DoD and the DHS. I meet frequently with Paul McHale, the Assistant Secretary of Homeland Defense. So we must continue to communicate on a regular basis.

**How does this establishment help bring the required capabilities to the warfighter?**

What's really good about the way the JPEO and the Joint Requirements Office work together is we now have what's called the Joint Requirements Oversight Committee (JROC). So through the Joint Staff, they come up with the requirements. We try to prioritize them and then we try to execute. No matter how much money we have, we never seem to have enough to do all the things we'd like to. So, we match our funds with our requirements, keeping the warfighter foremost in our minds,

to get the equipment to the men and women in uniform. By having a structured system in place, and a single Program Executive Officer with a clear mission, coupled with the requirements process that identifies our immediate needs, all those elements allow us to provide both the equipment that we need today into the plans for our future needs.

**When you think back to a year ago prior to the establishment to the JPEO, how are we doing business and what is the difference between then and now?**

I think we are much better organized today. I think we're much better focused. Our priorities are better understood. We have identified areas in which we know we need to work a little better, and we have a plan to carry those out. So I think the program is more efficient than it was a year ago.

**How has this formation of the Joint Program Executive Office leveraged and implemented the transformation direction authorized by the**

**Secretary of Defense?**

The JPEO absolutely has assisted in transformation. I think all of us now realize that we need to do things quicker and get the tools into the hands of the warfighter in a more rapid way. And also I think it has enabled us to concentrate on the capabilities so that we can handle uncertainties in a better way.

**Are there any concluding thoughts you would like to share?**

The only concluding thought I have is that the program is working well. There are minor improvements we will make, but I think having Brig. Gen. Reeves as the JPEO has given us more focus, more direction, and enhanced communication. He knows who to call, and I know who to call. Further, Brig. Gen. Nilo has helped us focus on the operational aspects of the program. So I think we are definitely making progress and our goal is to make it even better. 🌐



(Left to Right) Col Michael Kelley, USAF, Dr. Klein's Military Assistant, Dr. Dale E. Klein, Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs, Col Walter Kamien, USAF, Task Force DTRA Commander. Background; Camp Slayer, Baghdad, Iraq, east of the Baghdad International Airport. The palace was spared during the war because it looked too much like a mosque.

Photo by SFC Gilbert Mendoza



# Baseline Capability Assessment Support



Photo by Steven Lusher

Interview by Julius L. Evans

**D**r. Charles R. Gallaway became the Chief of the Arms Control Technology Division, Defense Threat Reduction Agency (DTRA) in 1995, developing technology to enable the U.S. Government to implement its rights and comply with its obligations under arms control agreements. In 2000, as Chief of the Systems Applications Division, he developed, integrated, demonstrated and delivered counterforce capability against Weapons of Mass Destruction (WMD). In 2001, he became Director, Advanced Systems and Concepts Office, stimulating, identifying and executing high-impact seed projects to encourage new thinking; and addressing technology gaps and improving the operations capabilities of DTRA, the Department of Defense and other government agencies in response to WMD

threats. In October 2002, he became, Director, Chemical, Biological Defense Directorate, responsible for managing all medical and non-medical chemical and biological science and technology efforts within the Chemical Biological Defense Program. Dr. Gallaway has a Bachelors of Science and a Masters of Science in Aerospace Engineering from Texas A&M and a Ph.D in Aeronautical Engineering from the Air Force Institute of Technology. He also completed studies at the Federal Executive Institute, the Harvard Kennedy School of Government, the Air Command and Staff College, and the Air War College.

**Please discuss the significance of the restructured Chemical and Biological Defense program and why it is important.**

First, from my prospective, it brought about a long-needed change in DoD to better manage the Chemical and Biological Defense Program. From the Joint Science and Technology Office (JSTO) perspective, it also now means we have a single place to look for requirements, the Joint Requirements Office (JRO), which is our connection to the warfighter, the combatant commander and the other services that bring to us what the warfighter needs. And we work very closely with the Joint Program Executive Office (JPEO) to meet the needs of the warfighter.

**Do you foresee further organizational or structural changes to the Chemical and Biological Defense Program?**

I don't, because I think this triad is





Photo by Steven Lusher

**“... I think this Triad is working very well together. In fact, we are probably working better together than we ever dreamed possible.”**

working very well together. In fact, we are probably working better together than we ever dreamed possible. When the implementation plan was developed, there wasn't a lot of cooperation between the players. So the implementation plan laid out some processes that had a clear division of authority, but we have essentially overcome many of those earlier issues. For example, in the past, the S&T folks were asked to pull together the Science and Technology (S&T) program in isolation; they would get the answer and then show it to the outside community, the Joint Requirements Office (JRO), the JPEO, and other players who would pass judgment on it. What we've just done is bring all those people inside the fence. While we're building the program, we've got representatives from the JRO sitting with us making sure that we're working validated warfighter needs. We've got folks from the

JPEO sitting with us to make sure that when we do the S&T that it's something that they can pick up and take into advanced development and subsequent procurement. So things are working a lot better than we ever dreamed. We're still a work in progress; we still have a lot to do but we're well on our way.

#### **What do you see as the advantage of putting the science and technology program under Joint Science and Technology Office management?**

I think the big thing that we have been able to accomplish is that the S&T is now an integral part of the CBD program. My sense was before this change of management, the S&T was off doing its own thing. Now, what we've have done is made it a responsible member of the CBD team. We're working programs to meet the true warfighter capability

needs. We're also working hand-in-hand with the JPEO, because once we develop something, they're the folks who actually move it along and hand it off to the warfighter. We don't do that directly because an S&T product is only half the solution.

#### **How is your organization changing the science and technology management within the Chemical and Biological Defense Program?**

We're making sure that we're doing S&T that is appropriate to the warfighter needs. Everything we are doing is supporting the baseline capability assessment developed by the JRO. We're not doing science for “science sake.” We want to be doing the correct science and on a schedule to get done, completed and transitioned to the JPEO and then the warfighter. And in doing that, what we're trying to do is to expand the spectrum of performers. In the past, the Army laboratories at Fort Detrick and Edgewood arsenal were the primary players in developing Science and Technology; they will continue to be the heavy lifters in this program. But what we want to do is effectively reach all other very good performers so that we're really getting the very best and brightest people to help us with this program.

#### **What are the greatest management challenges in the Joint Science and Technology Office?**

There are three challenges. First and foremost is the technology itself. We're being asked to take on very difficult problems ...trying to solve very difficult problems for the warfighter. That's why we have to reach out to the best and brightest to get the smartest people in this country and also interna-



tionally, to work on our problems. So that's the second challenge, making sure we're reaching out to the best and the brightest. It's a struggle to find out who they are, where they are and to bring them into the program. The third challenge, somewhat bureaucratic, is that the program is going through a lot of change. People are naturally reluctant to change. So what we're doing is trying to bring people along to realize that this is for the good of the cause; that we can ultimately provide a better product to the warfighter because of these changes.

**Can you discuss the greatest technical challenges the Joint Science and Technology Office face?**

We've got a tremendous number of technology challenges. The biggest one that's looming out there is to do a better job in bio, particularly in detectors and pretreatments. We want to be able to build real-time point detectors, as well as develop true standoff bio detection equipment so we know when we are under attack. And then the second one is medical pretreatment for bio. Right now, our national strategy is based around vaccines. We'd like to be able to vaccinate ourselves against the biological threat agents. Unfortunately, that list is long, and increasing. So our challenge is to create novel ways to leap-frog this approach of one vaccine for each biological threat agent. Innovative approaches include boosting an individual's innate immunity to get their natural system to work more effectively.

**How big of a role does the FDA play in the licensure of those vaccines?**

A huge role! In the medical

area, our government's policy is that everything we use will be Federal Drug Administration (FDA) approved. So to guarantee our success, we will talk with the FDA earlier in our process so that we know we are on track towards something that we will ultimately be able to license through them. But the FDA is key; all our pretreatment, medical diagnostics and treatments must go through FDA approval, or else they're not viable candidates for us.

**Would you mind keying in on process improvements? Is there anything that comes to mind when you think of this area?**

Yes, there are a few big ones. One is we have set up a process in which the selection of the projects in the S&T program will be much more responsive to the requirements or capability needs coming from the JRO. Secondly, we have also set up processes that will allow us to more effectively reach out to the best and the brightest scientists. Thirdly, we work very closely with the JPEO to establish technology readiness levels in our capability areas so that we can effectively transition technology to the JPEO. The way I look at this is that it is a contract between us, the JSTO, and the JPEO, so that Brig. Gen. Reeves knows what we're going to give him, when, and at what maturity level. Then, he and all his program managers can count on that and build their program. Our responsibility is to get it there at the right time, with the right maturity of technology and if we're not getting there, we need to tell them soonest.

**Are there any science and technology breakthroughs on the horizon?**

What we're doing with the pro-

gram is moving away from doing a little bit of everything. Using the baseline capability assessment as guidance, we're trying to figure out what will give us the best return on our investment to improve the warfighter's capabilities. So to give you just a few top priority things -- in the medical area, we'd like to develop a multi-agent prophylaxis. The idea is to be able to protect the troops from a large spectrum of biological threats, not just individual ones. So if we could protect people ahead of time that would be great. What about short-term protection, where we could somehow use bioscavengers to protect folks from chemical agents just before we think they might be exposed? In the area of biological threats, immunomodulators or antibodies, introduce them and get a short term protection, as opposed to the way vaccines work that give you a long time or even



**Dr. Gallaway and Dr. Ronald D. Yoho  
the Defense Threat Reduction Agency.**

lifetime of protection. Another area that's critical in the medical bio area is early indications of exposure. Because in many cases, if we know quickly, we have effective treatments to help save folks. In the non-medical areas, I've already mentioned that bio-detection is a very big push for us. Another area is decontamination. Historically, the military's approach to contamination was to just avoid it. Well, we're swinging the pendulum back. We want to focus on decontamination. And the crux of the problem is we don't have good decontamination materiel. So that will be a high priority for us. Finally, battle management, so we can provide the battlefield commander with good situational awareness to understand what is happening on the battlefield relative to chemical and or biological agents. And then finally, a couple of overarching things, an impor-

tant topic is environmental data on agents. When a chemical or biological agent is used on the battlefield, what will happen to it over time? How does it spread, is it degrading with time, what happens if it is absorbed into material, does it come back out with time, does it stay there, is it naturalized? So being able to understand the long-term duration is key to the concept of the operations used by the military. In their preparation they need to have a good understanding of this, so they can plan accordingly. A partner program with that is what we call the low-level toxicity of chemical agents. That is, what does the exposure to small amounts of chemical agent do to an individual? We want to be able to answer the question, "How clean is clean?" If chemical agents have been used on the battlefield, when can we safely go back and operate in that area without wearing protective clothing?

### **How does the Chemical and Biological Defense Program restructuring enable implementation of the transformation direction that has come from the Secretary of Defense?**

The policy is to make us more agile and flexible. We are trying hard to do that with the program, so we can more quickly provide capabilities that are being identified by the warfighter requirements. Secondly, the department is going more to joint operations and the new paradigm is that requirements are "born joint" instead of taking individual services inputs and putting them together and calling that joint. The CBD program, with the leadership of the JRO, is out front on that because we are a joint program. My personal opinion is that we will be the model for the department for how to do joint programs; we

have members from all the services but they aren't wearing their service hat.

### **Budgeting, acquisition, personnel and management systems have been intricate parts of the Secretary of Defense's transformation declaration. Can you comment on progression in these areas?**

Well, the department has gone through a major change in the acquisition process, the DoD 5000 series, and this program certainly accommodated that; the S&T component is an integral part of the acquisition cycle. Brig. Gen. Reeves is the Milestone Decision Authority for the program, so when he does a milestone 'A' decision, it's right smack in the middle of the S&T program. That's appropriate because he's ultimately the decision authority who has to produce the end product, so that helps make sure that we in the S&T community are working the right things. If we're not, we're not going to be able to pass through the milestone.

### **Are there any concluding thoughts you would like to share?**

I guess I would ask folks for a bit of patience because we're still a work in progress. We understand what the end state should be, but it's going to take us a bit of time to get there. I think we've moved very aggressively toward that end state, but we're not there. But again, I think we are making very good progress and the team is playing together very well. We all know where we want to get to, each of us have numerous tasks to get there, but it will all get done. 🌐



Photo by Steven Lusher

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# EXECUTING EXECUTIVE AUTHORITY

Interview by Julius L. Evans

A Frank Discussion with the United States Army's Top Acquisition Executive

**The** Honorable Secretary Claude M. Bolton, Jr., was sworn in January 2, 2002, as the Assistant Secretary of the Army, (Acquisition, Logistics and Technology). As the Army Acquisition Executive, Secretary Bolton is the Senior Procurement Executive and the Science Advisor to the Secretary of Defense. He also serves as the senior research and development official for the Department of the Army.

His responsibilities include appointing, managing and evaluating program executive officers and program managers, managing the Army Acquisition Corps, and overseeing research, development, test, evaluation and acquisition programs.

Formerly, Mr. Bolton was Commander, Air Force Security Assistance Center, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio. He managed foreign military sales programs with totals exceeding \$90 billion that supported more than 80 foreign countries. He is a command pilot with more than 2,700 flying hours in more than 30 different aircraft. During Vietnam, he flew 232 combat missions, 40 over North Vietnam.

**Please discuss the significance of the restructured program and why it is important.**

Well, our intent was to put under one roof, if you will, one leader over all the various service pro-

**What was the advantage of putting the joint programs under one program executive officer?**

I get to go to one person -- one belly button. And I think that's important -- not only for me

but for everyone in the DoD. Because we now have one organization to go to rather than several, and one person, Brigadier General Reeves, has the responsibility and the resources to get the job done. It also allows the other services to step up to manning that organization because now there's only one place to go. I think folks see, in the business sense, the right metrics to run the programs and the standards across those programs.



Photo by Steven Lusher

Honorable Secretary Claude M. Bolton, Assistant Secretary of the Army (Acquisition, Logistics and Technology), was sworn in January 2, 2002.

grams dealing with the Chemical Biological Defense (CBD) Program. That person would be in charge of all services' programs, while the Army is the executive agent. So I felt restructuring and reorganizing was very important. We did that about one year ago. I think the focused effort has been extremely beneficial to the Department of Defense (DoD) and to each one of the services.

**It took a couple of years to establish the Joint Program Executive Office. How is reaching the one-year mark significant?**

Well, it was almost two years and even prior to that, when we didn't have a single organization and we didn't have a single focus. Things changed from year to year; whether it was changed because of this position, or



because of someone in another office or another branch of service. Now, we have had a year of stability. I think that's important. It allows the Joint Program Executive Office (JPEO) to set a foundation, let people get comfortable with it, and to move on to improvements in the future. So a year of stability is important.

**Reviewing the past year, how would you assess the Joint Program Executive Office's efficiency?**

Very good! Outstanding. And I judge that not only from the reports I get from the office, but also by talking to my counterparts in the other services. What they like and they don't like. And so far, I haven't heard anything that I do not like. And that's good. As you go into the next year and we get a bit more formal in terms of metrics coming from the review, then we'll have some quantitative figures to use. But this year has been very, very busy for the JPEO, not only state side but in our Area of Responsibility (AOR) overseas. The JPEO and all the Joint Program Managers (JPMs) associated have been extremely responsive to that. And once again, that comes from not only the organization itself, but folks outside the organization. I think that is very telling of just how well this is working.

**Please explain how the Joint Program Executive Office has met your expectations since establishment?**

**“The Joint Program Executive Office has demonstrated an ability to accomplish its mission not only in the AOR, but around the National Capital Region as well.”**

The JPEO has demonstrated an ability to accomplish its mission not only in the AOR but around the National Capital Region as well. It has demonstrated the ability to satisfy the needs of the other services, and inte-

grating those programs and personnel into the JPEO. Its leadership has shown expertise by addressing issues at all levels, including the Army, the other services, the Office of the Secretary of Defense, those of Congress and industry.

**What are the most important issues facing the CBD community in your view?**

Well, the war on global terrorism and the constant threat of terrorists using biological and chemical agents against the population of others, in this country, or somewhere else on our troops overseas. So being ready to respond to that threat is an important issue, but we have been equipping our soldiers with the right protection. The other important issue is the ongoing effort to have better detectors with faster responding capabilities, that respond to more agents, more reliably and are more maintainable, not only for sites here but also for the soldiers. We are working all of that with the JPEO, the Defense Threat Reduction Agency (DTRA) and with industry.

**In your view, has the Joint Program Executive Office utilized the lessons learned from Operations Enduring Freedom and Iraqi Freedom? What specific lessons come to mind when answering this question?**



Secretary Bolton is responsible for appointing, managing and evaluating program executive officers, program managers, and managing the Army Acquisition Corps.

Photo by Steven Lusher



Photo by Steven Lusher

Formerly, Mr. Bolton was Commander, Air Force Security Assistance Center, Headquarters Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.

I think initially and particularly for Operation Iraqi Freedom, making sure we have the right suits, the right number of suits, and ensembles for our soldiers is important. I believe in having a detection capability and putting that in the field very quickly, first in the National Capital Region and then getting it to the AOR. We must also assist those outside the Army and outside the JPEO in their efforts to detect chem-bio agents on the battlefield. In addition, working with the National Guard, Civil Support Teams and Homeland Security to help them come up to speed in their ability to protect their own communities here.

### **Considering the different aspects that make up the Chemical Biological Defense Program**

**(CBDP), (science and technology, test and evaluation, and requirements and acquisition), has the CBDP effectively brought together all these different processes and perspectives to provide the warfighter the capabilities they need? How so?**

Well, we've done a good job. As I mentioned earlier, this organization has worked with DTRA, with the test and evaluation command personnel and the other services. So, under the leadership of Brig. Gen. Reeves, we've brought that all together. Now we're going to have to do more in the future. Most important is how do we do this faster, in terms of the S&T? How do we get capabilities through S&T faster, approved and

tested, and get it in the field. And once it's in the field, how do we ascertain that it's doing what it's supposed to do? If improvements are required, how do we quickly get them back into the cycle? So, we've asked these questions and we're doing a very good job thus far of getting S&T and ourselves together. Now it's a matter of getting that team and maybe others in the industry to reduce the cycle it takes to get other things done.

**Do you believe the establishment of the Joint Program Executive Office puts DoD in a better position to contribute to the global response on terrorism from a chemical biological defense prospective? How so?**

Oh yes, absolutely. We have one organization whose focus is to do just that. It's a joint organization so it gets expertise from other services working closely with other government agencies for S&T like DTRA and industry. I think we are in a much better position than we were a year or so ago.

**How does this establishment help bring the required capabilities to the warfighter?**

In the last year, we have had dozens and dozens of programs all under one person. Brig. Gen. Reeves has the resources and the authority to push those programs needing to be pushed and to stop programs that are not providing desired capabilities. An example is in the first detectors we put around the National Capitol Region. Look at the improvement today. They're more responsive now-- they have more reliability now. That same organization equally improved battlefield equipment. That same group of folks was called upon not too long ago when we had concerns about



chemicals left in the Senate building. So, the expertise is there in one place we can go to and say “here’s the issue, here’s what I need” and we know who will be responding to it.

**How has the formation of the Joint Program Executive Office leveraged and implemented the transformation direction authored by the Secretary of Defense?**

I think when you look at the organizations the JPEO interfaces with, whether it’s organizations like DTRA or industry (both domestic and foreign), laboratories and so forth, will not only simplify the transformation directive, but also create the model, not only for transformation, but for the organizational structure, as a joint organization.

**Are there any concluding thoughts you would like to share?**

The JPEO is doing a magnificent job. I can’t stress this point enough. It is a joint model to be followed. The JPEO has overcome many, if not all the issues normally associated with a joint organization in terms of resources, personnel, direction, and has put together an implementation plan that outlines roles and responsibilities people can clearly understand. Having the right leadership makes all this happen. So, hats off to Brig. Gen. Reeves, the leadership, and all the members of the JPEO. They’re doing a fantastic job. 🌐



Photo by Steven Lusher

Secretary Bolton has flown more than 2,700 flying hours in more than 30 different aircraft. During Vietnam, he flew 232 combat missions, 40 over North Vietnam.





Photo by Conrad Johnson

L to R, Gail Hatfield, Angie Little, Dave Fletcher. On cab: Lisa Mingioni, Sharon Sexton, Thoai Nguyen. Next to HMMWV: Dave Whitcraft, Tony Lenzi, Trinh Truong, Lou Schadie, Jake Keech, Rich Barbera, Bob Thresher. Front row: Lara Robbins, Sylvia Neal, Krishna Reddy, Dave Storms, Pat Berry, Don Curtis, Kathie Ashley, Alice Harper, Suzanne Kracke

# BIDDING for BIDS

By Dave Whitcraft

**S**hortly after Gulf War I, the U.S. Army initiated a program to quickly develop, manufacture and field it's first Biological Warfare Agent (BWA) detection system. Nearly 12 years later, the dedicated group of engineers and technicians of the Biological Integrated Detection System (BIDS) Manufacturing Team under the Joint Project Manager for Nuclear, Biological, Chemical Contamination Avoidance (JPM NBC-CA), at Aberdeen Proving Ground, MD, is about to close a chapter on that effort.

The BIDS required incorporation of multiple and complimentary BWA detection equipment



Photo by Robert Thresher

**Biological Integrated Detection System (BIDS) is equipped with a biological detection suite employing complementary technologies to detect large area biological attacks.**



into a High Mobility Multipurpose Wheeled Vehicle (HMMWV) mounted shelter, along with the necessary collective protection, power distribution, air conditioning and communication systems, and work space. Numerous technical hurdles had to be overcome. Because of the urgent need to field a system quickly, it was necessary to utilize commercially available detection components, which lacked the benefit of being designed for military use. It was decided that an in-house development effort would be the lowest risk option. The Edgewood Chemical Biological Center (ECBC) assembled a talented group of engineers and technicians to meet the challenge. Included in this group were Mr. Robert Thresher, a mechanical engineer, and Mr. Krishna Reddy, an electrical engineer. Together, they solved the physical interface and power requirement issues involved in packing that much equipment into such a small volume. The skills and experience of engineering technicians Dave Fletcher, Lou Schadie and Sharon Sexton were also critical in meeting the short deadlines. By Oct 95, the BIDS Manufacturing Team had assembled four Non-Developmental Item (NDI) BIDS for user testing. Following Type Classification (TC), and with help from other elements of the ECBC, the BIDS Manufacturing Team successfully completed the assembly and fielding of 41 M31 BIDS in Jan 97, marking the first fielded BWA detection capability of the U.S. Army.


Concurrent with the production effort on the M31, the BIDS Manufacturing Team was also busy with the necessary design work on the Pre-Planned Product Improvement (P3I) BIDS. This involved the replacement of many of the NDI detection components with equipment having higher detection

sensitivity and more automation, along with the incorporation of an information processor which analyzes data from each of the components to assist the operators in properly detecting and identifying twice as many BWA as the NDI system. This required a major redesign of the physical and electrical layout, but the BIDS Manufacturing Team was able to assemble seven M31E1 BIDS for two rounds of user testing in Apr 97 and May 98. After being type classified in Nov 98, the BIDS Manufacturing Team completed the manufacture and fielding of 42 M31A1 BIDS between Dec 98 and Mar 00.

The events of Sept. 11 triggered the acceleration of testing and production of the M31E2 BIDS, containing the completely automated Joint Biological Point Detection System (JBPDS), and digitized communication utilizing the Force XXI Battle Command Brigade-and-Below (FBCB2). This resulted in the nearly simultaneous fielding of M31A1 BIDS and M31E2 BIDS. In order to meet the demanding production and fielding schedule, the BIDS Manufacturing Team began a partnership with Letterkenny Army Depot (LEAD) in Chambersburg, PA. Utilizing the information provided by the BIDS Manufacturing Team, LEAD became a valuable partner by performing the shelter modifications required for both M31A1 and M31E2 BIDS prior to the installation of other components and detection equipment. Since then, LEAD and the BIDS Manufacturing Team have worked aggressively to assemble the needed M31E2 BIDS for testing, while simultaneously manufacturing 43 M31E2 BIDS and 41 M31A1 BIDS for fielding. This April will mark the completion of fielding four BIDS Companies, and the end of M31A1 production.

However, once these systems

reach the field, the BIDS Manufacturing Team does not forget about them, the team continues to provide sustainment and technical expertise to the field. When computer systems in the M31 BIDS became outdated and unsupported, the BIDS Manufacturing Team identified a replacement, designed the necessary interfacing hardware, and provided guidance to the Logistical Support Contractor on how to perform the exchange. Currently, the BIDS Manufacturing Team is tackling the same hardware and power issues created by the obsolescence of computer systems in the first Company of M31A1 BIDS. This effort is complicated by the concurrent job of installing a situational awareness camera on these same systems. If history is any guide, the BIDS Manufacturing Team will successfully complete this task too, along with the continued manufacture of additional M31E2 BIDS.

Over the course of the past 12 years, the BIDS Manufacturing Team has prepared test systems for eight different user tests, provided technical assistance for those tests, successfully assembled 167 BIDS and provided the technical assistance and upgrades needed to support those systems in the field. Because of the Urgency of Need for BIDS, this work has continuously been performed under tight schedules, requiring nearly constant expediting of ordering components, manufacture and assembly of detection systems. The U.S. Army BWA detection capability has been significantly impacted by the hard work and perseverance of the BIDS Manufacturing Team. Without the efforts of these dedicated individuals, a critical piece of the shield against Weapons of Mass Destruction would be missing. 

# Mr. Walter W. Hollis

## DUSA Operations Research

*Interview by Julius L. Evans*

**M**r. Walter W. Hollis became the 3rd Deputy Under Secretary of the Army (Operations Research) in December 1980. As such, he is responsible for establishing policy guidance and monitoring Army operations research activities. He initiates, conducts, and reviews justification of Army requirements and programs. He initiates studies of interest to the Secretariat and serves as the primary point of contact and liaison for similar activities in the office of the Secretary of Defense and other military departments. Mr. Hollis received his Bachelor of Science Degree in 1949 from Northeastern University in Boston, MA. Following graduation, he taught in the Physics Department at Northeastern and engaged in graduate study at Boston University. In 1973, he graduated from the National War College, Washington, DC, and received a Masters of Science in International Affairs from George Washington University.

**Please discuss the significance of restructuring Testing and Evaluation for the Chemical and Biological Defense Program, and why it is important?**

The significance, of course, is it ties together the services' Test and Evaluation (T&E) programs, which previously had no real mechanism for full cooperation. The new program makes T&E joint, and gives the responsibility for making sure

testing methodologies are common across the services. So the restructuring steps up to the issue of jointness in this area, as well as it makes good sense from the standpoint of dollars and cents.

**How have the changes resulting from the Implementation Plan leveraged the transformation direction initiated by the Secretary of Defense?**

The transformation direction is also joint. That's the big thing. And because the Test and Evaluation infrastructure management and processes are joint, we've been able to plan for some efficiencies in the investment side. And that's always helpful.

**What are the advantages / impact of having a single Test and Evaluation Executive for the various joint programs within the Chemical and Biological Defense Program?**

Having a T&E Executive Agent makes one person responsible to ensure things are coordinated well and to make sure we don't duplicate capabilities, for example at Eglin or Dugway, unless there is some good reason to duplicate. There's obviously a very good reason to have a humid environment chemical/biological simulant test range as well as one in the desert. It's just a matter of ensuring we have

common instrumentation and procedures. One of the things I want to be sure of is that when a given finding comes in from a range, that the instrumentation has either been calibrated with the instrumentation on the other ranges or is the same.

**The Implementation Plan consolidates key acquisition activities (such as requirement generation, acquisition management, and science and technology) under joint entities. Do you see similar further movement towards a more joint approach to T&E for the CBDP? If so, how would you envision this being accomplished?**

I think we have done the things that needed to be done, to make it joint, in that we have several process action teams, we have one individual who's the stuckee for decisions and I provide my support to one individual who is the Acquisition Executive of the Army. So I think we have made some progress. I think the continued movement in the joint approach will be to continue strengthening the coordination among the services' T&E organizations. This can be accomplished because the T&E capabilities that we are planning to cover for all services' needs, based on their participation.

**Is it too early to gauge the success and effectiveness?**





Photo by Steven Lusher

Mr. Walter W. Hollis, Deputy Under Secretary of the Army (Operations Research).

I think it's too early to gauge the success of this operation at this point. If I remember the numbers correctly, we've only had a couple of tests run, and in both those cases the test results were less than what we needed; so it was back to the drawing board to do some more testing and better integrated planning.

**What do you consider to be the most significant accomplishments in testing and evaluation since the inception of the CBPD Implementation Plan?**

Well, I think the most significant thing is that we have gotten joint test teams put together. We have actually executed at least one test with one joint test team. We have now a single investment plan process so we don't duplicate instrumentation all over the world. Sometimes you do have to have another set, but

it's planned, not accidental. So I think we have become much more capable of efficient operations, but I guess time will tell how successful we are.

**How has the relationship changed between the acquisition community and the T&E community post Implementation Plan?**

Not having been familiar with the relationship between the Navy Acquisition Executive or the Air Force Acquisition Executive and their T&E organizations, it would be hard to say precisely. But clearly, if you have one man at the head in charge of acquisition and one man who is in charge of ensuring uniform test procedures are used, I think it must be to some extent better, and certainly it would be more possible and easier to improve it than if it were left separate. We do have much more

of a partnership between T&E and acquisition.

**In your view, what are the most important issues facing the Chemical and Biological Defense Program test and evaluation community?**

The most important issues have to do with garnering enough resources to improve our instrumentation on all the ranges that do these kinds of chemical and biological defense testing. We have a process; we have Integrated Process Teams that have identified what the needs are. The challenge now would be to resource these needs and execute the acquisition of the required T&E capabilities.

**Operational testing and evaluation requires subjecting the system to as realistic an operational environment as possible. Given the myriad of logistical and regulatory issues involved with active agent testing, how do you see the Test & Evaluation community responding to this challenge?**

The response is straightforward, and it may not be considered by all as the best, but it's the best we can do. We test in chambers with both live agent and simulant and examine the difference of the performance; and there will be some. Then we use the simulant in the field as a surrogate for the real thing and make reasonable and analytical judgments as to what the differences seen in the laboratory might mean in the field. It's not a perfect way, but it's the best way that we can do it now. It would be possible to build an actual chamber large enough to represent reasonable outdoor conditions at a place like Dugway, but we don't have the resources to do that now. We have some plans which include inputs

from the Director, Operational Test & Evaluation (DOT&E). We will look at the list of things they would like to see done.

**In your opinion, considering the different areas that constitute the Chemical and Biological Defense Program (CBDP), (i.e., science & technology, test & evaluation, requirements generation, and acquisition management), has the CBDP efficiently and effectively brought together all these different processes and perspectives to provide the warfighters the capabilities they need? How so?**

I can only address what I think the test world has done. I think we have brought together the resource people, the instrumenters, the T&E planners, and they are doing a good job of testing the products that go through the program. Warfighters require validated systems and the right information regarding how to use them. The mechanism is there for an efficient process which has brought together all these areas; however, until the T&E infrastructure needs are fully incorporated into the planning, programming, and budget-

ing process, and funded, we cannot be fully effective.

**Do you believe the establishment of the Joint Program Executive Office puts DoD in a better position to contribute to the global response on terrorism from a chemical / biological defense perspective? How so?**

Yes, because we now have a process established for making sure that test planning and execution is done jointly and efficiently. And as we move forward, we should be able to field the equipment at some point at a faster rate than we have in the past. Also, there will be more kinds of equipment available for use by first responders if they choose to acquire such things. Another key benefit of a joint acquisition approach is to promote system interoperability and common equipment across the services, which are critical for successful global response to terrorism.

**Over the past year, we have focused on resolving key testing and evaluation issues in the areas of funding, testing capabilities, and policy. How would you assess**

**our progress thus far? Where do you see us going from here?**

Well I think the progress has been good on uniting the services on the issues of T&E requirements, and the definitions of the kinds of T&E capabilities improvements that are needed on the ranges. The one area where we know what we should do is the funding area. The process there involves factors beyond our control; but at the moment, the challenge is to get adequate resources to improve the laboratories around the test ranges.

**Are there any concluding thoughts you would like to share?**

Well, I'd just like to add a compliment to the people who have helped me develop this process; the Navy and Air Force T&E Executives, the staff of the Joint Program Managers, the Joint Program Executive Office, the Joint Requirements Office, the Defense Threat Reduction Agency, and the test agencies themselves. They've done a great job of dealing with the restructuring of the T&E program. Without that type of cooperation it would be impossible to succeed here. 🌐



Testing for chemical or biological agents require a number of different safety precautions.

Photo by USAMRIID, DOD



# To Catch a Germ Dry Filter Units' Naval Role

*Edited By Melisa Mahoney, written by Mr. Michael Pompei, (Naval Surface Warfare Center - Dahlgren Division)*

In July of 2002, the Navy, anticipating war with Iraq, needed an immediate Biological Warfare (BW) detection and identification capability. A three tiered concept of operations was developed; using an aerosol collector and a quick screen field identification capability, set up confirmatory analysis laboratories on carriers and large deck amphibious ships, and a definitive identification capability at the Naval Surface Warfare Center - Dahlgren Division (NSWC-DD). The aerosol collector is a COTS NDI (Dry Filter Unit (DFU)), the quick screen field identification capability is the Hand Held Assay (HHA), the confirmatory analysis laboratory is the RAPIDS/Light Cycler Polymerase

Chain Reaction (PCR) technology, using Navy reagents and a Biological Safety Level 2 hood with 24/7 reach-back accessibility to BW identification experts at Naval Medical Research Center (NMRC)/ Biological Defense Research Directorate (BDRD), and the definitive identification is provided through the expertise and technology residing at NMRC/BDRD. The execution and logistics of this concept was arduous and required teamwork and extreme dedication to execute.

The Navy merged two different BW detection concepts to form a systems approach to BW detection and identification. These separate efforts consisted of a fleet initiative

led by LCDR Mike Boehm (NMRC/BDRD) to determine the feasibility of deploying PCR technology in the medical spaces aboard U.S. Navy aircraft carriers. The second effort, led by Edward A. Lustig Jr., (NSWC-DD), was to determine the system employment concept for DFUs and HHAs for U.S. Navy personnel. Together the team developed a conceptual systems approach to fleet BW detection. This approach was to provide presumptive identification equipment and training to damage control (DC) personnel onboard all U.S. Navy surface ships, provide confirmatory identification equipment and training to medical personnel onboard large deck ships, and



Crew members of USS *Gonzalez* (DDG-66) pose with the technical staff from Naval Surface Warfare Center - Dahlgren Division, Melisa Mahoney, Ed Lustig, and Derek Dahlgren.

Photo courtesy of Melisa Mahoney

finally to provide technical reach back and sample analysis to NMRC/BDRD for definitive identification.

The team received permission through the 3rd Fleet Surgeon Capt. Jeff Young to get underway aboard USS *Constellation* (CV-64) in September 2002 along with damage control personnel of the seven surface ships associated with her Battle Group. The plan was to present the concept, train personnel, and field equipment. The initial experiment was extremely effective and well received by the users. The concept was briefed to the Pacific Fleet chain of command and began to gain high-level visibility. In a matter of weeks, NMRC/BDRD personnel developed the first two-week shipboard BW testing course for industrial health officers and laboratory technicians to support this effort. The same personnel would also provide DFU, HHA, sample packaging, and chain of custody training to DC personnel.

Because the equipment needed to provide this capability was not

yet part of a program of record, Combined Forces Fleet Command (CFFC) generated an urgent fleet requirement for the concept in October 2002. This requirement was generated, signed within two weeks, and was the basis for an Urgent Need Statement (UNS) that was forwarded to the Joint Requirements Office (JRO) for approval in order to acquire enough equipment to provide this capability to the Fleet outside of the normal acquisition process. In late October 2002, the USS *Harry S. Truman* (CV-75), carrier battle group hosted the training and fielding experiment that proved successful aboard USS *Constellation*. Again the training and fielding evolution proved highly successful. A total of 16 ships were outfitted with BW detection and identification capabilities and it's crewmembers trained in less than six weeks. Much of the fielding and training efforts were completed while the battle groups were underway without interfering with normal shipboard operations. The concept began to gain momentum from the user up to the top-level

Navy leadership in the Pentagon. LCDR Mike Boehm was requested to brief the Vice Chief of Naval Operations (VCNO), on the BW detection initiative. After hearing the brief, the VCNO released \$5 million in funds to extend this effort to a total of eight carrier battle groups, eight amphibious readiness groups, two hospital ships, and naval material construction battalions. In addition, the VCNO wanted the endeavor accomplished in three months in preparation for the invasion of Iraq.

Prior to Operation Iraqi Freedom, the Navy trained and equipped all deploying U.S. Navy warships and ground assets with this BW detection capability. Biological warfare detection assets (equipment and personnel) were pre-positioned in theatre prior to the onset of hostilities. Fleet-wide messages were sent summarizing CONOPS for both presumptive and confirmatory capability. Naval Forces Central Command (NAVCENT) Bahrain became the focal point for the continual around the deck information link to OPNAV/NAVSEA/BDRD as



USS Harry S. Truman (CV-75)

Official US Navy Photo



well as logistics hub to re-supply units with BW detection consumables.

By May of 2003, NSWCD-DD had modified JPEO-CBD training modules (DFU Operations, HHA analysis, sample packaging and shipping, and chain of custody) and the DFU Operations Manual specifically for shipboard employment and provided training to DC personnel and Navy training commands. A Navy Training System Plan (NTSP) has been developed to formalize training at Navy school houses and Navy instructions and manuals have been updated to incorporate this BW detection and identification capability. NSWCD-DD continues to provide new equipment and refresher training using these modules during the transition of training responsibilities to the fleet. DFU/HHA logistics has also been addressed by NSWCD-DD. An Allowance Parts List has been developed, National Stock Numbers have been assigned to DFUs and DFU Kits, and a User Logistics Support Summary Report is being developed to provide interim guidance to the Fleet. The DFUs were recently evaluated aboard the USS *The Sullivans* (DDG-68), which will result in an Observation of Operational Capability (OOC) assessment from COMOPTEVFOR.

In less than 12 months, the Navy BW Fleet Detection Team successfully fielded BW detection capabilities to 12 carrier battle groups and 12 amphibious readiness groups in support of Operation Iraqi Freedom and the global war on terrorism. This fielding effort beat the DoD's estimated delivery date for this capability by three years, saving millions of dollars in test and evaluations. This effort required coordination, teamwork, and dedication of personnel from NAVSEA, NMRC/BDRD, NSWCD-DD, Navy Medical community JPEO-CBD, Joint Requirements Office (JRO),



Photo by Melissa Mahoney

**Damage Controlmen aboard the USS *Stump* (DDG-978) received training on Dry Filter Units from Naval Surface Warfare Center, Dahlgren Division.**

Fleet Technical Support Center Atlantic, CFFC, Battelle, Camber Corporation, and ACS Defense. This effort dramatically changed the bio-defense preparedness of the U.S. Navy prior to deploying to the Central Command Area of Responsibility.

The program surpassed all goals. This initiative is an example of using innovative techniques to make the acquisition system more efficient, responsive, and timely. Borrowing from the proven Advanced Concept Technology Demonstration (ACTD) formula, the initiative met warfighters needs quickly, inexpensively, and provided an effective capability. The participants anticipated the war in Iraq and the shortfalls in the bio-preparedness of the US Navy and planned and executed the tasks that would significantly increase the operational readiness to deal with the BW threat. The overall effort was an example of teamwork and was led by a dedicated group of

U.S. Navy active duty and reservists, DoD civilians, contractors, and joint service personnel. The effort was action oriented and managed risk head-on rather than avoiding it. The important ingredient exemplified by this effort was sticking to the main goal and the intent of the DoD acquisition process. This goal is to provide the war-fighter what they need in a timely, cost effective manner. This type of effort simplified and reengineered the acquisition process. When the users needs are sincerely addressed and the problems are solved, the objective will be accomplished. The war-fighter viewed the BW detection team as an integral component in providing the needed capability. To date, approximately two thirds of the U.S. Navy Fleet has been provided with this capability. NSWCD-DD and NMRC/BDRD will continue to field this equipment, refine CONOPS, and provide training and logistics support until the entire Fleet has this capability. 🌐

# First Responders

## Weapons of Ma

*By Al Vogel, West Desert Test Center, Optical Data Section*

**S**omeday, a police officer may knock on an ordinary door and discover a terrorist's chemical or biological agent laboratory. What happens next could greatly depend on what the officer learned in the remote Utah desert a few years before, at the U.S. Army's Dugway Proving Ground. (DPG). Dugway - some 80 miles southwest of Salt Lake City - is home to the U.S. Army Developmental Test Command's West Desert Test Center (WDTC), a major test site for the Army Test and Evaluation Command and Department of Defense.

The West Desert Test Center's primary mission is to test equipment against chemical and biological (CB) warfare agents. Test items include protective masks and suits, agent detectors, filtration systems, decontaminants, decontamination systems, etc.

In recent years the test center's Special Programs Division has begun teaching individuals in military and civilian agencies to recognize and respond appropriately to CB incidents.

"We are fortunate, and the nation is fortunate, to have the expertise available to us here," said Lt. Col. Christopher Rasmussen, the commander of WDTC. "We not only test protective equipment but we also prepare these national-asset teams and individuals with the proper techniques and procedures to successfully and safely conduct their missions while protecting themselves and others from potential exposure and harm."

Dr. Michael Glass, director of the Special Programs Division, said Dugway offers advanced training for special-mission units, such as National Guard Civil

Support Teams (CSTs).

"This training is for groups that are required to conduct operations within the hot zone, whether that is detection, sampling or decontamination," Glass said. "We focus our training on hands-on work in simulated but realistic CB warfare environments."

The Army created the CST program in 1996 to assist communities across the United States in CB response preparations. Although Soldiers train to respond to nuclear, chemical and biological incidents, most CST units come to WDTC for advanced CB training. Dugway also conducts limited radiological training with support from outside agencies.

Since the inception of the CST program, National Guard units have trained with the civilian





# Train to Deal with Mass Destruction

first-responders whom they would almost certainly work beside in a real CB incident. Police, firefighters, medics, hazardous-materials handlers and environmental personnel have joined the CSTs at Dugway to build a rapport through mutual training.

With its world-class expertise and facilities, the West Desert Test Center conducts most of the training, but not all. Dugway's movie theater, public school and commissary have been used to create realistic scenarios - with their personnel, teachers and students playing roles.

The Special Programs Division has also developed specialized sites to reflect realistic situations, including a recently built "town" with a mock restaurant, post office, two-story motel, office building and warehouse.

Dugway Proving Ground's

nearly 800,000 acres (3,235 square kilometers) of remote desert provide ample room for a variety of scenarios, including simultaneous scenarios conducted miles apart. Some courses allow students to wear their Level A suits, fully protected and breathing from an air tank inside their suit. Other scenarios may require only a gas mask or respirator and protective clothing. Nearly every kind of training is offered through a number of courses. The Advanced Chemical Biological Incident Response Course (ACBIRC) is a week-long, seating 36 students divided evenly into six teams. Each team learns how to gather samples and operate detectors and monitors. Teams also work in WDTC laboratories alongside CB experts.

A daylong exercise at the mock town brings everything together

as students rotate among six different sites that include CB incident scenarios, mock CB laboratories, toxins and a hoax.

The Bio Sampling Detector Course (BSDC) is four days. Students may work up to Bio-Safety Level-3 if defense testing doesn't tie up the Biolevel-3 Laboratory. Students learn how to use various methods to sample for biological agents from a variety of surfaces.

Mobile Training Teams (MTT) travel to the home site of first responders and train within the responders' schedules. This may be the only method for firefighters and medics to get this kind of training because their schedules might prevent them from coming to Dugway.

"They're using their equipment and their communications, blocking off the (same) streets they



Photo by Lauren Ishmael, Compilation by Steven Lusher

would in a real situation, and building support with other locals,” explained Ron Delgado, senior test officer and project manager for the Special Programs Division.

The Chemical and Biological Survey Course (CBSC) is four days. Two days in the chemical laboratory and two in the biological laboratory. It was created to teach students detection and sampling,

and how to recognize the everyday items that might be used to create a CB laboratories, a skill called “signature recognition.”

Rapid Assessment Initial Detection (RAID) Challenge Course is 10 to 14 day of intense training, alternating between CB field exercises and a days in the laboratory or classroom. Scenarios take place every other day. West Desert Test Center experts

advise and observe throughout.

Initial Response Team (IRT) training is designed for 13 to 14 students. Some students are from CST units, but most are police, fire, medical or public health personnel. The IRT is trained to quickly deploy to a suspected CB incident to conduct an initial analysis before the main CST unit is deployed.

The Special Programs Division



Soldiers of the 3rd U.S. Infantry Regiment (The Old Guard) walk on the airfield at Camp Lemonnier, Djibouti, during a helicopter Joint Task Force-Horn of Africa.



creates the training scenario, and students are given a training objective, but the IRT responds as it sees fit. Dugway firefighters, security and police may participate in IRT training.

Tactical Operations is a newly created course with an emphasis on law enforcement and security personnel responding to a Weapons of Mass Destruction incident. The course is offered at WDTC or

at the agency's home site.

The U.S. Coast Guard recently asked Special Programs to develop a training course to teach its personnel how to clean up a CB incident.

"Special Programs is close to developing an entire training course - from when the cop knocks on the door to when the Coast Guard monitors the clean-up," Delgado said.


The success of the Special Programs first-responder courses may be partly measured by the return of students. Some bring other first-responders with them to attend the same course they've already had, or they return for a new course. "I've seen one guy here four times," Delgado said. "He told me that every time he comes out here he learns more and more." 



Photo by Spc. Eric McKeelby

training exercise. Old Guard Soldiers are participating in tactical missions and training exercises as part of the Combined

# Straight from Baghdad

*These emails were sent to Chem-Bio Defense Quarterly magazine and published with the author's permission.*

*Emails are edited for content.*

**April 6, 2004**

I trust that all is well with you. We are getting closer to the June 30th date to turn over the control to the Iraqi people. The US has decided whom it wants in power but there are some here who want to have that power for themselves. They are willing to do anything to get it. They do not have a plan, just hatred. Yesterday outside of my gate some one tried to run his car into a US made 60 ton armored tank. Needless to say, he didn't make it.

Today is the second day that our workers have not been able to come to work. It is too dangerous for them. The US forces are in the market place and most of the streets are cornered off. We have a full brigade down there and there are people crazy enough to shoot at them. Some soldiers are hit when they shoot at them but, you better believe that the U.S. forces send them a thank you package back. They will shoot and run into their houses. Guess what happens next? Good answer, that house becomes a parking lot.

The streets are very quite today. The workers are living in fear. PRAY for these people!! They are being killed or hurt in the name of religion and history.

I NEED MUSIC-If anyone can download Jazz, Gospel, Gospel Jazz, Blues, your Church program or whatever, I need it. I have two CDs and I am wearing them out.

I will take your old stuff it does not matter. It is hard to get music here. I can find anything that is playing at the movies for little or nothing (Yes they bootleg here too.)

Terry

**April 8, 2004**

The U.S. Army and Marines have taken over most of the streets here. They have some of the best fighting equipment in the world but, the workers that made it in today told me that men dressed in black and wearing orange headbands are running around trying to shoot the soldiers. They told me that there are hundreds of people being arrested by the military. ALL soldiers were given strict orders about anyone dressed like that. It didn't matter whether they were carrying weapons or not. I did not know this and decided at 6:30 this morning that this was a good day to wear black pants and a matching black shirt. The first soldier that saw me told me that I may need to change. I think that I look better now in my green pants and shirt.

Most of the men stayed home today. Only the ladies came in. Rehab, Waffah, Ala'a, Marium, Nadda, Nidda and Nadia came in. They are crying about what is going on here. This is their first job and the only way that they can make a living. They told me that they have been around wars all of their lives. They are in their late twenties and have lost most

of the good men in wars. They said that explosions are going off everywhere in Baghdad. There are messages coming from the Muslim Mosque that said "all Muslim should stand up and fight Americans and any Iraqis caught working for or with the Americans, blood will be running down the street. They know that there is no life insurance here and if someone kills you, it is just too bad. No detective work, no arrest, no investigation, nothing, just a funeral. Ala'a told me today that if she is not here on any day, it is not by her own will. She and I watched the US Bombers take off today and this Sunni Muslim Iraqi women said that she hopes that the Americans get all of the Iraqis that are in the Mosque. She said that everyone knows that there are weapons in the Mosque and that the Shiites and Sunni Muslim guerrilla are staying there.

Over 75% of the people here are uneducated and unemployed. I believe that Iraq is going to be harder to fix than we can imagine.

On a sad note, one of our Iraqi drivers was killed last night in Baghdad. I can only imagine what his family is going through. Fortunately, he is not like Marium's family. Her dad has two wives, 11 daughters and three sons (one of her brothers was killed in the war between Iraq and Iran).

Be Blessed and Thank God for the USA.

Terry

**April 9, 2004**

Hey Dad,  
Some KBR civilians were killed yesterday by some mortars that I heard while in church for the Passover supper service. We have a name for the local



Iraqis, anyway, they tried to come through the wire twice today and got shot up by some automatic weapons fire. Anyway, I still haven't got your package yet, and I'm going to keep this short, as I haven't checked my email since 14 Mar and have 60 to check. I saw Derek R. and he showed me around his hangar, including the planes that he pilots, and those remote controlled spy planes that fly around photographing.

Apparently, an Apache got shot up last night too, or so I heard. We now have to have not only our weapon, Kevlar, and flack vest with us wherever we go, but we have to be wearing our flack vest with the SAPI plates in it, and have our Kevlar's on. Anyway, Derek said hi. Love you man.

~Bruce III

P.S. - Some of the soldiers in the unit are going to Falujah in a couple days because they need to pick up some more mechanics. Also, I met a guy who knew Uncle Steve but I forgot what unit he was with. He was a NG soldier out of NH. Three or four days prior to that, they lost a few guys.

**April 9, 2004**

Hello From Baghdad

It is another fine morning in Baghdad. All is well here. Was last night the 4th of July or something? Some of my chicken hearted painters and carpenters ran off into the night. I don't know where they think they are going. The fireworks are coming from here and not coming to us.

Today, Friday is like our Sunday so everything is very quite. We will have the speakers later from the Mosque doing a chanting type prayer. All of the streets are blocked off in the city. We know where the insurgents are and we REALLY said hello to them last night.

Well, got to run, must finish one of my buildings today for newly arriving soldiers.

Be Blessed,

Terry

**April 11, 2004**

Good Morning and Happy Easter,

It is 2 a.m. for you and 10:15 a.m. for me. I am heading to Church. I need to get there early to get a seat. These soldiers really know how to have Church. It is hard to get past two points about my Church. First, I (sadly) may be the oldest member and second, the pastor and me are the only ones not carrying a gun. It is strange seeing weapons at the altar and weapons next to the organ and drums. Finally, if there is anyone with a pastor that sings as bad as mine, please stand up. Pastor Ibanga is originally from Nigeria and sometimes I think that he forgets that he is not singing in his native language. He is a very good minister with a willing spirit but he can't sing a lick.

All is well in Camp Victory. We cleaned up the camp today. Our workers will wait until the Iraqis come in to clean up. The Doctor and me lead the pack in the clean up. Keep praying for my Iraqi workers, I have not seen some of them in over a week. Cell phones are the only things that work and most of them cannot pay \$230 to get one. I pray that they are OK.

The workers have calmed down. We had them play a game of soccer last night. I could only play about four minutes before they were ready to send me to the bench. They have played this game all of their lives and I have played once. The ball went past me so fast that I only felt the wind. They got a kick out of laughing at me.

Well, be blessed I am headed to Church.

Terry 🌐



Photo by SGT Erik Eimar

Major Terry Hill, U.S. Army(Ret.), from Hiram, GA, pauses a moment and enjoys one of Saddam Hussein's favorite chairs. Terry emails CBDQ regularly.

# Interagency Collaboration

## The Watchwords Within

# Joint Requirements

Interview by Julius L. Evans

**C**olonel Brian Lindamood is the Deputy Director of the Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense. Born at Fort Bragg, NC, he was commissioned through the Officer Candidate School, Fort Benning, GA, in 1982 after graduating from the University of New Mexico. Colonel Lindamood holds a Master of Arts degree in Military History from Louisiana State University and the coveted Master of Strategic Studies degree from Carlisle Barracks.

**Please discuss the significance of the restructured requirements program and how it is different from the Joint Service Integration Group?**

Well, I think the biggest benefit under the new structure is that it gives all the customers, not just the services but the combatant commanders, a one-stop shopping opportunity when it comes to Chemical, Biological, Radiological, and Nuclear (CBRN) Defense. It is designed to be responsive, between the three elements of the Triad, the Joint Program Executive Office (JPEO), Joint Requirements Office (JRO) and the Joint Science and

Technology Office (JSTO); we have the ability to manage without seams in the program. There's overlap at every juncture, which means that at all times someone is watching over all parts of the program and that's something we didn't have before.

**It took quite a long time to establish the Joint Requirements Office. You are now just over one and a half years old. How has the establishment of the JRO affected the CBD community for the last year and a half? Can you describe the significance?**

It was an evolution. As we moved from the old structure, Joint Service Integration Group (JSIG), Joint Service Materiel Group (JSMG), to the apparatus we enjoy now, has not been without its growing pains. But, I would say that even a child growing up healthy has growing pains. So, in this new stage we have gone through similar kinds of growing pains. As we came through this first year, and I think the first year is really the telling story, we were able to address the needs of the services and the combatant commands. Going through a major reorganization in terms of personnel, our mission, and new relationships,

we've done this without missing a beat. Now, did we do it all cleanly the first time? No. But one thing the whole team (JPEO, JSTO, JRO) did was immediately capture the lessons learned. These lessons include: how to do business better, smarter, and how to communicate with the other elements of the Triad so that we can turn around products as quickly as possible and get them into the hands of the user. The significance is we finally have an organization, I believe, in spirit and in craftiness, that exercises the intent of what the public law called for when it established the Chemical Biological Defense Program (CBDP).

**That's a good point. You mentioned the public law, would you care to expound on that.**

Public Law 103-160 mandated that the services would evolve from service specific programs to a true joint CBD program managed by Office of the Secretary of Defense (OSD). That was done primarily to ensure that the right kit got in the hands of the user. It's also a smart business practice. There's no need to buy four different masks when one mask has the potential of servicing all four ser-





**COL Brian Lindamood, Deputy Director of the Joint Requirements Office for Chemical, Biological, Radiological, and Nuclear Defense.**

vices. Where we can capitalize on common programs, we save money. And that money can be applied to specialized products. Let's say an aviator needs a mask different from one needed by a combatant on the ground, a combat vehicle or a naval crew person. Public Law (103-160) enables us to bring together all of

our resources in one place, practicing smart business, and at the same time focusing the Research and Development (R&D) and Science and Technology (S&T) efforts. Ultimately, what transfers into procurement to put into the hands of the user is under one oversight process, as opposed to four, as in

the four services. The added element here is that the JRO, JPEO and JSTO combatant commands now enjoy the opportunity to provide input as to how we go about meeting their needs. I think it's also important that we, the Triad, capture the needs and priorities the combatant commanders voice without absolving the services' Title 10 Authority. I think the current organization allows us to do that and I believe that's what the intent of the public law was to start with.

**The JPEO-CBD is almost one year old. Please explain how the Joint Program Executive Office has met your expectations since their establishment?**

Brigadier General Reeves gets solutions into the hands of the user as quickly as possible. And that mirrors very nicely with our roles as the advocate for the combatant commanders and the services in conveying their required capabilities. Just like Dr. Gallaway at the JSTO takes as his charge being the advocate for developing the technologies and transitioning the technologies out of R&D into materiel development, Brig. Gen. Reeves expedites solutions to the user. That is by far the greatest asset we have. So long as he maintains that focus, the process of determining required capabilities, developing and exploring technologies, and ultimately feeding that knowledge into production and procurement, his focus remains the user, the Soldier, Sailor, Airman or Marine on the ground. That's the driving force behind everything we do.

**What would you say are the most important issues facing the CB community today?**

I would start with our National Security Strategy. President Bush made

*Photo by Steven Lusher*

it clear that defending the homeland is the number one priority. We have a number of efforts available that focus on protecting the homeland. One of the things we have to work real hard at getting is some sort of synergy between the various agencies to collaborate on that process. While we enjoy a handsome defense budget, we know there's never enough to get everything done. So we have to find ways to partner with the Department of Homeland Security (DHS), Department of Energy, and other agencies that have programs out there to develop and field CBRN capabilities to their employees and support staff. If we can cooperate on that we save the taxpayers a lot of money.

**You mentioned R&D and S&T. When you think of the CB community and how it has brought together these elements (R&D,**

**S&T, T&E), has the CB community effectively brought together these different processes and perspectives to provide the war-fighter with the capabilities they need and if so, how?**

I wouldn't say we've reached nirvana yet but I think we are just about there. For the first time all the elements you just described are working on one set of priorities. That's the piece that our office handles. Based on the input from the combatant commanders and the services, we establish the priorities. Those priorities feed into what Brig. Gen. Reeves does in his role as materiel developer -- to put capabilities into the hands of users. So by working on a common set of priorities, we've done more to bring that whole collection of efforts into a common cause, if you will, than anything that could have been done in the old JSIG/JSMG lash up. With

the capabilities based systems that we have in place, programs are 'born joint' and supported up front by analysis to assess applications across the entire joint force, always keeping in mind defense of the homeland is our number one security objective application here at home within Department of Homeland Security (DHS), and the other interagency players. So a common set of priorities I think is by far the greatest factor.

**Earlier you mentioned the National Military Strategic. In thinking about the National Security and the National Military Strategic, how will those two elements help us better interact with the role the Department of Homeland Defense (DHD) has laid out in reference to the DoD prospective on defensive measures against CB and terrorist type threats.**

While the Secretary of Defense has yet to clearly define what DoD's contributions are going to be to the homeland defense effort, we still have agencies sharing information. We have collaborated on studies and exchanged information on R&D and S&T efforts, on procurement efforts, and we have begun the process of exploring opportunities for further cooperation. Obviously, we've got the technical expertise and we've got a lot of institutional knowledge on CBRN defense or combating Weapons of Mass Destruction (WMD), to offer DHS. When you look at the effort we're going through right now to put CBRN defense capabilities on DoD installations, I would offer that has tremendous application in DHS's charge to protect the homeland. An installation is a lot like a small city. So those kinds of capabilities that we're going to put at Fort Bragg or Fort Hood or Andrews AFB, would have direct application. The meth-



Photo by Steven Lushier

**"That's something that JCIDS did for us. We would have NEVER been able to do this under the old system. The staffing process was just too rigorous and there was just no control over it. JCIDS brings absolute control over the capabilities document staffing system process. You have to respond and you have to respond on time."**





Photo by Steven Lusher

"I wouldn't say we've reached nirvana yet, but I think we are just about there."

odology for determining those capabilities, the process of prioritizing which installation in which city gets what kind of capability, all have tremendous utility in helping DHS go about their charge. The greatest ace in the hole that we have though, is as we reflect back on the National Security Strategic; the President has enumerated several national strategies since he has been in office. The first one is Defense of the Homeland, Combating Terrorism, the National Strategy for Ballistic Missile Defense and the National Strategy to Combat WMD. Never, ever has there been that level of interest, that level of focus; and when you take a look at the language in that National Strategy, it is very, very aggressive. It is very active and there is no misunderstanding that our President has placed this at the very top of his to-do-list in terms of not just protecting Soldiers, Sailors, Airmen and Marines, but the Homeland as well as our partners and allies. Armed with that kind of emphasis, it immediately translates down to the DoD level and the National Military Strategy, that combating WMD is high on Mr. Rumsfeld's priority list. Never have we enjoyed that much emphasis

and that kind of priority as we compete within DoD with some pretty important capabilities out there. So there's a lot of focus to make our capabilities better, which fuels our responsibility to share process methodology and institutional information with our partners at DHS. As a matter of fact, that's the number one project on our to-do-list right now, here in our office.

### **How does the JPEO help bring the required capabilities to the warfighter?**

I think by helping not just to articulate what's important, but by offering a methodology to determine how important their required capabilities are, is probably the greatest service we can provide to energize and expedite the whole determination and validation of required capabilities to get a solution into the hands of the user. I would have to add that not all of those solutions are materiel. Not all those solutions are things the JSTO is going to resolve, or the materiel developer at the JPEO is going to deliver. Some of them are training solutions. Some are doctrinal - some could be amendments, or where we

determine a void is in our doctrine by developing something appropriate will cover all the requirements for the joint warfighting team. We have that also in our charge. We don't just validate a requirement for materiel solution -- we do the same thing for non-materiel solutions. We are empowered with a new capabilities based process under Joint Capabilities Integration and Development System (JCIDS) to do just that. In fact, the whole intent behind JCIDS is that not all solutions require going out and building or buying a widget. We can do things smarter with the widgets we have. Or we come up with a concerted effort to build awareness or efficiency, or to refine doctrine based on lessons learned. That may be the answer to the gap in a required capability. So having the ability to influence validating and stating clearing what the required capability is, having the customer tell you what they want, we can facilitate that for the customer and then obviously, being the one place that they go to if we don't have the solution, we're their advocate with whomever is responsible for working that. Again, it's one-stop shopping for the combatant commands and services.

### **There's been a lot of work in homeland defense in selection protection and consequence management within DoD and the services. Currently, they are not a part of the JRO Charter. Do you foresee them becoming a part of the JRO Charter and if so, when and what impact will the mission be to the overall support of the warfighter?**

That's a part of the growth in the office that we discussed earlier. Historically, over the first year and a half of our office's existence, we were focused almost exclusively on passive defense for the warfighter. Consequence management is one

of the pillars of the President's National Strategy to combat WMD. That's the first one we're taking on as we look at how we're going to grow in the services that we provide, not just to the triad, but to our customers - the warfighter.

Using the same methodologies that we've used in determining and prioritizing required capabilities for passive defense, with some modifications, we've already seen how we can use that same methodology for determining the required capabilities to support consequence management missions abroad and at home, applications for the war-fighter, applications for DHS. So we're already seeing synergy from a process we developed here in the office, under a very narrow focus of passive defense. Following consequence management, we have to take a look at some of the other emerging mission areas in combating WMD; elimination, exploitation and ultimately supporting the most aggressive of the Presidents initiatives with respect to combating WMD - the offensive pieces, like interdiction. Who's going to work the

required capabilities there? Who's going to validate those? Who's going to do the requirements documents? Some of that is going to reside within Special Operations Command -- and it needs to be there for obvious reasons. But some of those capabilities are going to need to be in the hands of the conventional war fighting force. Where else would you go for something combating WMD? Well, we contend it should be our office. This is all pre-decisional at this point. This is just one guy's vision of where the office should go. Consequence management, for obvious reasons, is most likely the biggest WMD mission we're going to have to combat here at home. We have to be prepared for that. From there, we can take on elimination, exploitation and the other elements of the national strategy.

Using the same methodologies and processes for determining and prioritizing the capabilities, that sets the stage for expediting everything that everyone involved does to get the capabilities in the hands of the user, whether if its materiel or non materiel.

**The Joint Requirements Office has developed a CBRN Baseline Capabilities Assessment (BCA) to manage the efforts of CBD program investments. How is the BCA working and what is the overall impact on the program funding, prioritization, and delivery of capabilities to the warfighter?**

That's the methodology to which I referred to in the previous question. That effort was done in the summer of 2003. It was a several month long study and it was focused exclusively on passive defense for the warfighter. The result of that assessment was a list of 39 gaps in capabilities to perform passive defense at the warfighter level.

We've been able to modify, evolve, and shape it to perform the same sort of analysis for consequence management. We are going to apply it to the other pieces of the combating WMD mission in the future. With the Baseline Capabilities Assessment (BCA), we have a tool that's been validated by the Joint Requirements Oversight Council and at



(Left to right) Craig Reichow, John Boyd, CDR Tom O'Donnell, COL Joe Saady, COL Brian Lindamood, LtCol Ralph Hensley, Maj Anthony Ordner, LtCol(P) Mike O'Keefe, LtCol Sandy Wood, (2nd row), Dave Osborne, SFC Todd Bottorf, Pete Steen, Bob Chapman.

Photo by Steven Lusher



their direction is to be used in future Program Objective Memorandum builds. When you talk to the various offices that either exercise oversight or play a direct role in executing or managing CBD programs and you ask them what are the priorities, they'll show you a chart we developed that lists the 39 capability gap areas. We shared this methodology with DHS. They use it to conduct a bio defense front-end analysis specific to the homeland, with tremendous success. In fact, we learned other ways from them that we could use our methodologies. So the BCA brought a lot of synergy in that it put everybody on the proverbial same sheet of music.

**The old CJCSI 3170.01B has been replaced by the 3170.01C, JCIDS. How has JCIDS been implemented within the JRO and how have the changes affected/impacted the overall management of requirements/capabilities within the JRO?**

Let me take the second piece first. JCIDS has made it better! It gives us and all the other offices involved in determining required capabilities, a common platform for staffing, approving and validating those required capabilities. It gives us an opportunity to see, not only the capabilities documents for the systems or the efforts we are working specific to CBRN Defense or combating WMD, but it allows us to view the capabilities documents for everything from major weapons systems all the way down to radio transmitter receivers. With a view to CBRN survivability, CBRN protection, that whole piece, it gives us a visibility of the total war fight, and gives us an opportunity to leverage our technical expertise in ensuring the warfighter gets a capability that provides the full range of protection. To the first part of the question; implementation was directive in

nature. We had to do it. There was no democratic process there, but we embraced it whole heartedly. Again, it gave us the opportunity to share with the capabilities determination system, what we were working with and at the same time, gave us a view of what they were working. So we could offer our technical expertise in providing the best possible product for the end user. The mechanics of validating required capabilities, documenting those capabilities, while it's been front-loaded with a lot of typing and a lot of data field entry, we're seeing that it's going to streamline the staffing and the approval process. Which means it accelerates what the JSTO and JPEO get to do. The biggest addition this brings is it gives the combatant commanders an opportunity to have their voice heard when it comes to what the required capabilities are and where they fit in the prioritized list.


**With the 3170.01C change from block upgrades to incremental changes, how do you see this impacting the delivery of programs to the field?**

It provides ability to use spiral development. We just realized a major step forward recently, in that we were able to get an initial capabilities document approved for a transportable decontamination system. Based on a materiel solution fielded under an urgent need to support Operation Iraqi Freedom, we found that this was a pretty close match to what was being proposed in the initial capabilities document. We were able to convene the Integrated Concept Team and was able to demonstrate that we had a capability that we thought offered the right first step and had little problem in convincing them that it was the right way to go



Photo by Steven Lusher

**"Brig. Gen. Reeves is resolved to get solutions into the warfighter's hands."**

and here we'll have in short order, an approved capabilities document which in turn the materiel developer would use to begin fielding - not producing, but fielding - an off the shelf product. When you reflect on what this is going to do for us, there is no S&T and there is no R&D. There will be some T&E, but we are able to energize and take advantage of capabilities that already exist, put it in the hands of the user, and save a lot of time and money. That's something that JCIDS did for us. We would have NEVER been able to do this under the old system. The staffing process was just too rigorous and there was just no control over it. JCIDS brings absolute control over the capabilities document staffing system process. You have to respond and, you have to respond on time. It forces all of the players to work together at the Integrated Concept Team level and ultimately the functional capabilities are forwarded all the way up to the Joint Requirements Oversight Council. 

# THE CAT THAT COULD

by Major  
Alfred Abramson

**Chemical, Biological, Radiological, and Nuclear  
Unmanned Ground Reconnaissance (CUGR)**

**B**oth Brigadier General Stephen V. Reeves, Joint Program Executive Officer for Chemical and Biological Defense (JPEO-CBD), and Dr. Charles Gallaway, Defense Threat Reduction Agency (DTRA), Joint Science and Technology Office for Chemical and Biological (CB) Defense promoted this effort as the "poster-child" for conducting a successful Advanced Concept Technology Demonstrations (ACTD). The effort received support from various organizations, which include: the Deputy Under Secretary of Defense (DUSD) for CB Defense; and the Joint Requirements Office (JRO) for Chemical, Biological, Radiological, and Nuclear (CBRN) Defense. Recently, all fiscal year 2005 ACTD candidates were briefed during a four-day conference in Lansdowne, VA. At the conclusion of the CBRN Unmanned Ground Reconnaissance (CUGR) ACTD proposal, it was clearly evident that the Combatant Command representatives were doubly impressed by both the concept, and the prior work placed into the effort thus far. The question is, "what is this CUGR ACTD, and what is it all about?" It is a successful collaboration between the offices of DTRA (the Spon-

sor), Edgewood Chemical and Biological Center (ECBC) (the Technical Manager), U.S. Army Pacific Command (USARPAC) (the Operational Manager) and the Joint Program Manager for NBC Contamination Avoidance (JPM NBC-CA) (the Transition Manager), that will quickly transition this new concept, and new technology to where its needed most, the warfighter. To understand what makes this effort successful, the requirements for the capability must be understood. That will explain how CUGR will bridge the gap.

Success of current and future military operations are conditioned upon the speed and overwhelming combat power commanders use to secure their objective. Most recently, U.S. forces moved from Kuwait to Baghdad during Operational Iraqi Freedom (OIF), and were concerned about the possibility of encountering a variety of unconventional threats, including the use of nuclear, biological, and/or chemical agents. Initial intelligence reports on the Iraqi threat required the U.S. forces to remain in a protective posture during most of the major military operation. A challenge within the currently fielded liquid contamination detection system,

the Double Wheeled Sampling System (DWSS), is that the NBC Reconnaissance vehicles are required to significantly reduce the vehicle speed in order to obtain a successful detection. Initial After Action Reports (AARs) from OIF stated that the DWSS was maintenance intensive, and sensitive to surface conditions. These conditions, coupled with the fact that the current NBC reconnaissance vehicle, known as the FOX, is limited in terms of deployment options, because of its size and maneuverability in urban environments. Ultimately, in combat situations the freedom of maneuver for U.S. forces can be significantly restricted by the challenges the NBC Reconnaissance assets face, and their ability to perform their mission. With that said, a requirement to overcome these challenges exists with the necessity to provide a more rapid, and efficient ground contamination detection capability in addition to increasing the employment options of the reconnaissance capability.

That capability exists within the CUGR ACTD effort. This effort will exploit the Next Generation Sensors (NGS) architecture. Using the Joint Service Lightweight Standoff NBC Reconnaissance




sance System (JSLNBCRS) as the vehicle platform, in connection with an unmanned ground vehicle (UGV) platform, they will, in connection ultimately provide the foundation for the improved NBC reconnaissance mission. This capability will improve the speed and efficiency of traditional area, zone, and route reconnaissance missions. Additionally, the use of the UGV will allow NBC recon missions to extend to Beyond-Line-of-Sight (BLOS) distances, and into increased high threat areas - providing an increased level of protection to the warfighter.

The CUGR ACTD will have two technology thrust areas: the Contamination Surface Detector (CSD); and an UGV. The CSD will

comprise of a non-invasive, laser interrogation system. It will use Raman Spectroscopy as the basis for the detection capability. It will improve the detection, and identification capability to include Conventional Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs)/Toxic Industrial Materials (TIMs), and Non-Traditional Agents (NTAs). The UGV will carry an integrated, mission-tailorable NBC detection module. This module (or brick) will consist of a variety of proven NBC detection devices/sensors that will extend the NBC reconnaissance capability into restricted terrain, urban areas and high-threat locations.

To date, the CUGR ACTD management team has aggressively coordinated for, and received sup-

port from various organizations that will ultimately guide this effort toward success. Representatives from Research and Development, the U.S. Army Chemical School, Army Test and Evaluation Command, and the Program Manager for Unmanned Ground Vehicles have all signed on to support the effort. With an official start date in Fiscal Year (FY) October 2005, Risk Reduction, and Concept of Operations (CONOPS) work has already begun. After the projected demonstration of the CSD capability in FY-06, and the demonstration of the UGV capability in FY-07, the full compliment of operationally capable residuals will be transferred to the 95th Chemical Company, located at Fort Richardson, Alaska. 



Official Army Photo

**Chemical, Biological Radiological and Nuclear (CBRN), Unmanned Ground Reconnaissance (CUGR) - Advanced Concept Technology Demonstration (ACTD) will provide advanced reconnaissance while reducing the risk of lost lives.**



## NEA Project Helps Troops Write About Wartime Experiences

The National Endowment for the Arts (NEA) is offering a series of writer's workshops led by accomplished authors to help troops and family members in telling their wartime experiences.

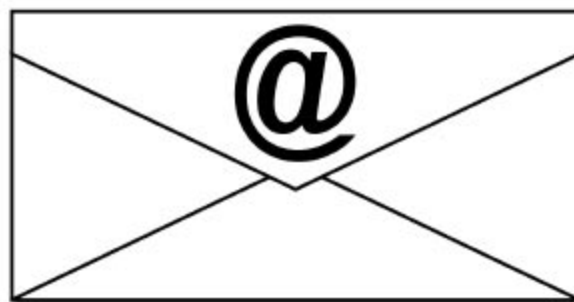
The two-day workshops will be held at several state-side and overseas military bases for troops returning from wartime duty in locales like Afghanistan and Iraq. Workshops will be led by distinguished writers such as Tom Clancy.

*American Forces Press Service*

## Enlisted Soldiers to soon find out assignments via e-mail

In March of 2004, Human Resources Command (HRC) began notifying Soldiers of their next duty assignment by e-mail to their Army Knowledge Online e-mail address. This information is e-mailed to them 90 days prior to their departure.

*(Feb, 2004), Army News Service*



*Illustration by Steven Lusher*



*Photo by Steven Lusher*

The flag pictured is in the correct placement. It resembles a flag flying in the wind as the soldier moves forward.

## U.S. Flag Insignia to be Worn by All

All Soldiers can now wear the U.S. flag insignia on the right shoulder of their utility uniform as a reminder that the Army is engaged in a war at home and abroad. Army Chief of Staff General Peter J. Schoomaker approved the uniform change February 11, 2004, and all Soldiers throughout the force, regardless of deployment status, have until October 1, 2005, to get the insignia sewn on their uniforms. "This will serve as a vivid reminder that our nation is at war."

Sgt. Maj. Walter Morales, the Uniform Policy Chief for G1 said, "The flag has been around for years to identify deploying troops. Now based on the Army's joint expeditionary mindset, the flag represents our commitment to fight the war on terror for the foreseeable future."

*AR News Service and Acquisition Support Center, March 2004*

## Air Force Technician Earns \$10K for Idea

A simple idea can be worth a lot of money; at least that is the case for Staff Sgt. Kevin Jackson. The 25-year-old jet-engine technician was awarded \$10,000 for his submission to the Air Force's Innovative Development through Employee Awareness program.

Sergeant Jackson's suggestion on hydraulic fluid will save the Air Force about \$250,000 a year in materials and manpower. By submitting the idea, he earned \$7,500 after taxes.

*3rd Wing Public Affairs*



*U.S. Air Force photo by Gary Martin*



# 'The Reason for Our Success is Our People.'

## Awards

Awards given since January 2004 are as follows:  
 COL Walter N. Burnette - Meritorious Service Medal  
 CDR Charles Cutshall - Joint Service Achievement Medal  
 Captain Jayson M. McDonald - Joint Service Achievement Medal  
 Captain Vincent T. Riche - Joint Service Achievement Medal  
 Captain Carla U. Sizer - Joint Service Achievement Medal  
 LTC Jeffrey Stiefel - Defense Meritorious Service Medal

Certificates of Achievement were awarded to the following personnel supporting the Joint Portal Shield Program:

Mr. Douglas M. Bronski  
 Mr. Lee R. Cook  
 Mr. Wendell W. Crusenberry  
 Mr. Ryan S. Hanko

Mr. Philip M. Hoffman  
 Mr. Philip K. Manuel  
 Mr. Michael J. McDanel  
 Mr. Robert C. Murtha

Mr. Steve L. Hardesty  
 Dr. Gaines C. Ho  
 Mr. Gary E. Seeber  
 Mr. Steven W. Torres



Photo by Elizabeth Sass

Commander Charles H. Cutshall, (center), received the Joint Service Achievement Medal while serving as the Director of Business Management and Chief Financial Officer for the Joint Program Executive Office for Chemical and Biological Defense. Flanked by his staff are (L to R), Linda Greer, Mark Dunn, Margaret Gibson, Sherry Love, Marvin Monroe and Ruth Martin.





Brig. Gen. Stephen V. Reeves, (JPEO-CBD), COL Brian Lindamood, (JRO), and COL Thomas Spoeher, (J-8), ceremoniously slice a cake with a traditional Army sword, signifying the JPEO-CBD's one year anniversary.